METEOROLOGY RESEARCH CENTER
Box 1249, Minneapolis, MN 55440
(612) 853-3595

CONTROL DATA CORPORATION

(NASA-CR-175157) ANALYSIS OF SELECTIVE CHOPPER RADIOMETER DATA Final Report (Control Data Corp.) 57 p HC A04/MF A01 CSCL 04B

N85-21894

Unclas

G3/47 20039

ANALYSIS OF SELECTIVE CHOPPER RADIOMETER DATA

by

J. Roe, D. Hovland and R. Wilcox

Final Report
Contract NAS5-27663
with
NASA-Goddard Space Flight Center
Greenbelt, MD

September 15, 1983

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Analysis of Selective Chopper Radiometer Data		5. TYPE OF REPORT & PERIOD COVERED Final Report 28 Apr 1983 - 28 Oct 1983
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) J. Roe, D. Hovland, and R. Wilcox		8. CONTRACT OR GRANT NUMBER(s) NAS5-27663
9. PERFORMING ORGANIZATION NAME AND ADDRESS Meteorology Research Center Control Data Corporation Box 1249, Minneapolis, MN 55440		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS NASA-Goddard Space Flight Center Greenbelt, MD 20771		12. REPORT DATE 15 September 1983
		13. NUMBER OF PAGES 53
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION ST· ·ENT (of · · abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY TES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Stratospheric temperatures Temperature retrievals		

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Data from SCR-B on Nimbus 5 have been processed to yield global, orbital temperatures at 10, 5, 2, 1, and 0.4 mb for the period January 1977 through April 1978 under the current task. In addition gridded values at 10° latitude by 20° longitude were prepared by space-time interpolation for the period January 1975 through April 1978. Temperature retrieval was based on regression of radiances against Meteorological Rocket Network data, with regressions recomputed at approximately six-month intervals. This data now completes a consistent time series from April 1970 to April 1978 for all available radiance

data from SCR A and SCR B on Nimbus 4 and 5.

This report discusses the processing details for the current period but is also applicable to the previous data periods. The accuracy of the temperature retrievals for each 6-month period for the entire eight years is given in the Appendices. All data will be archived at the NSSDC.

Table of Contents

ABSTRACT

Data from SCR-B on Nimbus 5 have been processed to yield global, orbital temperatures at 10, 5, 2, 1, and 0.4 mb for the period January 1977 through April 1978 under the current task. In addition gridded values at 10° latitude by 20° longitude were prepared by space-time interpolation for the period January 1975 through April 1978. Temperature retrieval was based on regression of radiances against Meteorological Rocket Network data, with regressions recomputed at approximately six-month intervals. This data now completes a consistent time series from April 1970 to April 1978 for all available radiance data from SCR A and SCR B on Nimbus 4 and 5.

This report discusses the processing details for the current period but is also applicable to the previous data periods. The accuracy of the temperature retrievals for each 6-month period for the entire eight years is given in the Appendices. All data will be archived at the NSSDC.

I. INTRODUCTION

The past several years have seen a tremendous surge of interest in the upper atmospheric regions above 10 mb. Better knowledge of the dynamics and thermodynamics of these regions is now seen to be essential to improved understanding of, for example, ozone photochemistry and flux, the morphology of stratospheric planetary waves and warmings, and possible links between upper and lower atmospheric phenomena.

The purpose of this task was to provide global temperatures above 10 mb from the SCR-B radiometer on Nimbus 5 for the period January 1977 through April 1978. In view of the experience gained in processing the SCR-A data (1970-72 from Nimbus 4), and the SCR-B data for 1973-76, the 1977-1978 data have been processed in a similar manner so that the entire data set is consistent. Together, the SCR-A and SCR-B data now provide an 8-year data set from which many studies can be made.

One method for obtaining temperature profiles from satellite-observed radiances is by inversion of the radiative transfer equation. However, there are many physical, chemical and computational difficulties in this approach. One of these is the lack of a unique solution, or the need for statistical information to help choose a reasonable but still not unique solution. Another method for obtaining temperatures from radiances is statistical, and is due to the existence of correlations (e.g. Table 1) between radiances and temperatures at the levels of interest. Using such statistics, regression equations can be developed, and used to predict temperatures using radiances, as in Reference 1. It is a basically simple exercise to do this, although, as will be shown in this report, these data sets had many problems and idiosyncracies which necessitated creative solutions.

It must be noted that, although results have been produced for five levels, there are not five independent pieces of information in the set of radiances used, due to the vertical depth and overlap of the weighting functions (Fig. 1). It is likely that atmospheric structures with vertical wavelengths shorter than about 15 km (Reference 2) have little influence on the radiances, and thus temperatures derived from such radiances cannot contain such small structures. The result is that little independence exists between retrieved temperatures at adjacent levels, but there is increasing independence with increasing separation of the levels. Data independence is further discussed in Section VIII.

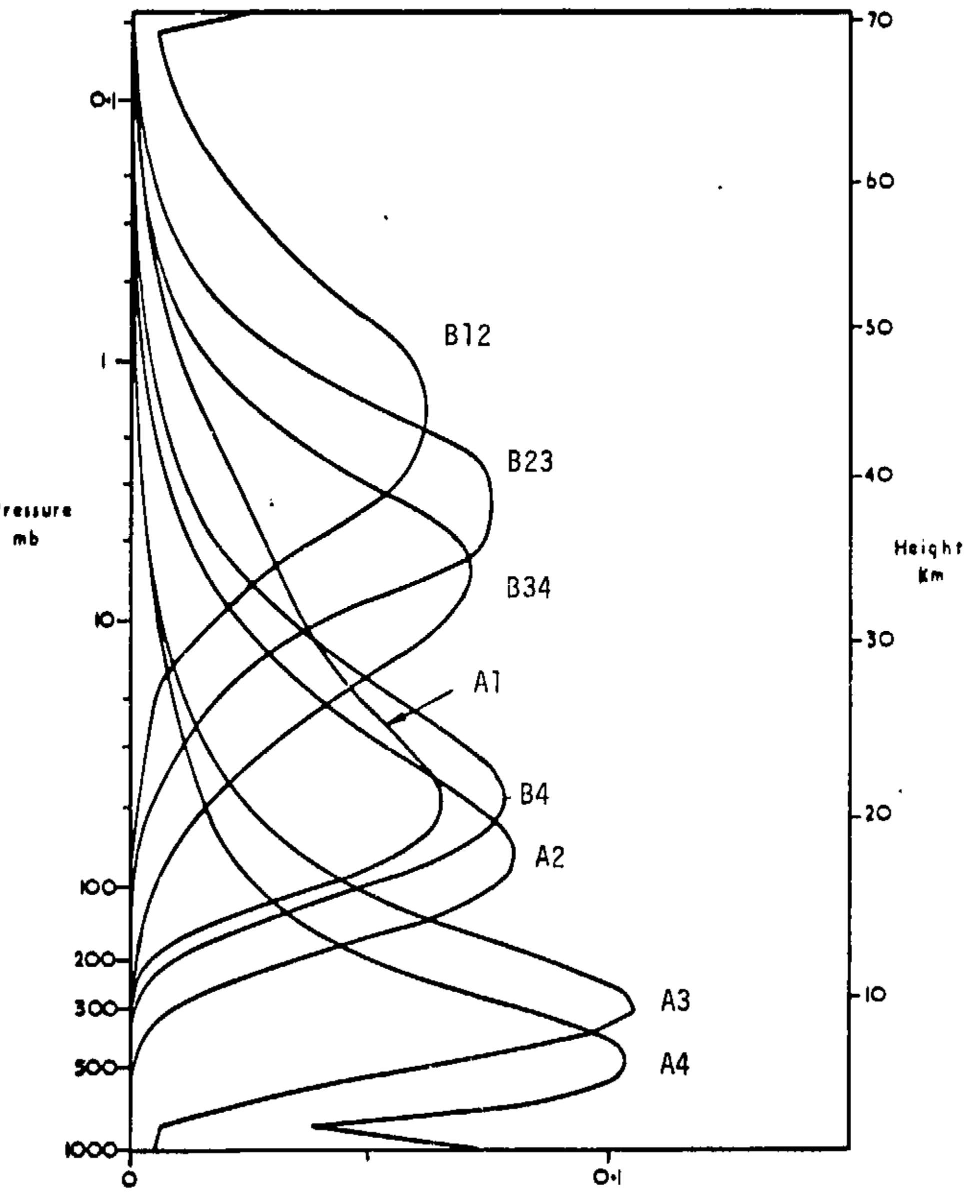

Figure 1. Weighting functions for the Nimbus 5 SCR (From Reference 3).

Table 1

Correlation coefficients between SCR radiances and rocketsonde temperatures at high latitudes, for two different six month periods.

	16 Apr 1977 - 15 Oct 1977 Level (mb)					16 Oct 1977 - 30 Apr 1978 Level (mb)				
Channel	10	5	2	1	.4	10	5	2	1	.4
B4	.93	.92	.91	.89	.79	.88	.73	.55	.48	.12
B34	.93	.96	.97	.94	.77	.83	.92	.91	.80	.28
B23	.91	.95	.95	.91	.71	.70	.86	.94	.87	.40
B12	.87	.92	.95	.94	.81	.48	.69	.89	.92	.59

II. SELECTIVE CHOPPER RADIOMETER DATA

A. The SCR Instrument

In December 1972, SCR-B was launched aboard NASA's polar-orbiting satellite, Nimbus 5. The SCR (Selective Chopper Radiometer) instrument, which is described in Reference 3, was designed, in part, to sense radiation upwelling from regions 10 mb to 0.4 mb. The weighting functions for this instrument are shown in Figure 1; the radiances which are available for determining temperature in the regions above 10 mb are Channels B12, B23, B34, and B4. These radiances have been "cleaned" carefully, regressed with coincident rocketsonde data, and used to produce a time series of sub-orbital temperatures at 10, 5, 2, 1, and 0.4 mb for the period January 1977 through April 1978.

B. Data Sources

The SCR-B data beginning in January 1975 were on a tape supplied to CDC by the Oxford experimenters. The format of this tape is given in Reference 4. The data of interest for this work were in a form called orbit grids. For each day, the ascending and descending parts of the orbits were separate. For up to 14 orbits per day, 41 points were defined representing each 4^{o} of latitude from $80^{o}S$ to $80^{o}N$. Points without data had zero radiance. Identification words included year, day, and

node (equator crossing longitude) of the easternmost orbit. There was no information on the tape about the time of the individual radiances.

C. SCR-B Radiances

An example of the calibrated radiances from the SCR-B data tape is shown in Figure 2. The orbit plotted is complete from the Northern Hemisphere (NH) descending into the Southern Hemisphere (SH) and then ascending into the NH again. Radiances at each 4° latitude are plotted. The radiances were previously smoothed by the Oxford experimenters. Details of the calibration processing are given in Reference 3.

D. Missing Data

After May, 1975, the Nimbus 5 SCR data were typically available only every second day, and even on days with data the orbital coverage was not complete. Furthermore, periods of no data, lasting from several days to occasionally several weeks, occur frequently.

III. DATA EXTRACTION AND ORGANIZATION

A. Time and Position Calculation

Preliminary processing transformed the SCR-B data from the orbit grid format of the Oxford tape into a format similar to that used in previous work with SCR-A data (Reference 5) and SCR-B data (Reference 6).

Identification information for each radiance had to be calculated since only the data day number and the longitude of the node of one orbit for the day were given with the data. The latitude computation was straightforward since each point in the orbit grid was for one of 41 latitudes, 4° apart.

Longitude and time calculations required another source of information. From Nimbus 5 ephemeris data supplied by NASA-Goddard Space Flight Center, nodes for one orbit per month were calculated. From these monthly nodes, the times and longitudes of the nodes of every Nimbus 5 orbit in the period 12 May 1974 to 30 April 1978 were computed. These longitudes of the computed nodes were then compared with the reference longitudes on the SCR-B data tape. The few days for which the reference longitudes did not agree with the computed nodes were discarded. For the remaining days, time and longitude for the node of each data orbit were assigned from the file of computed nodes.

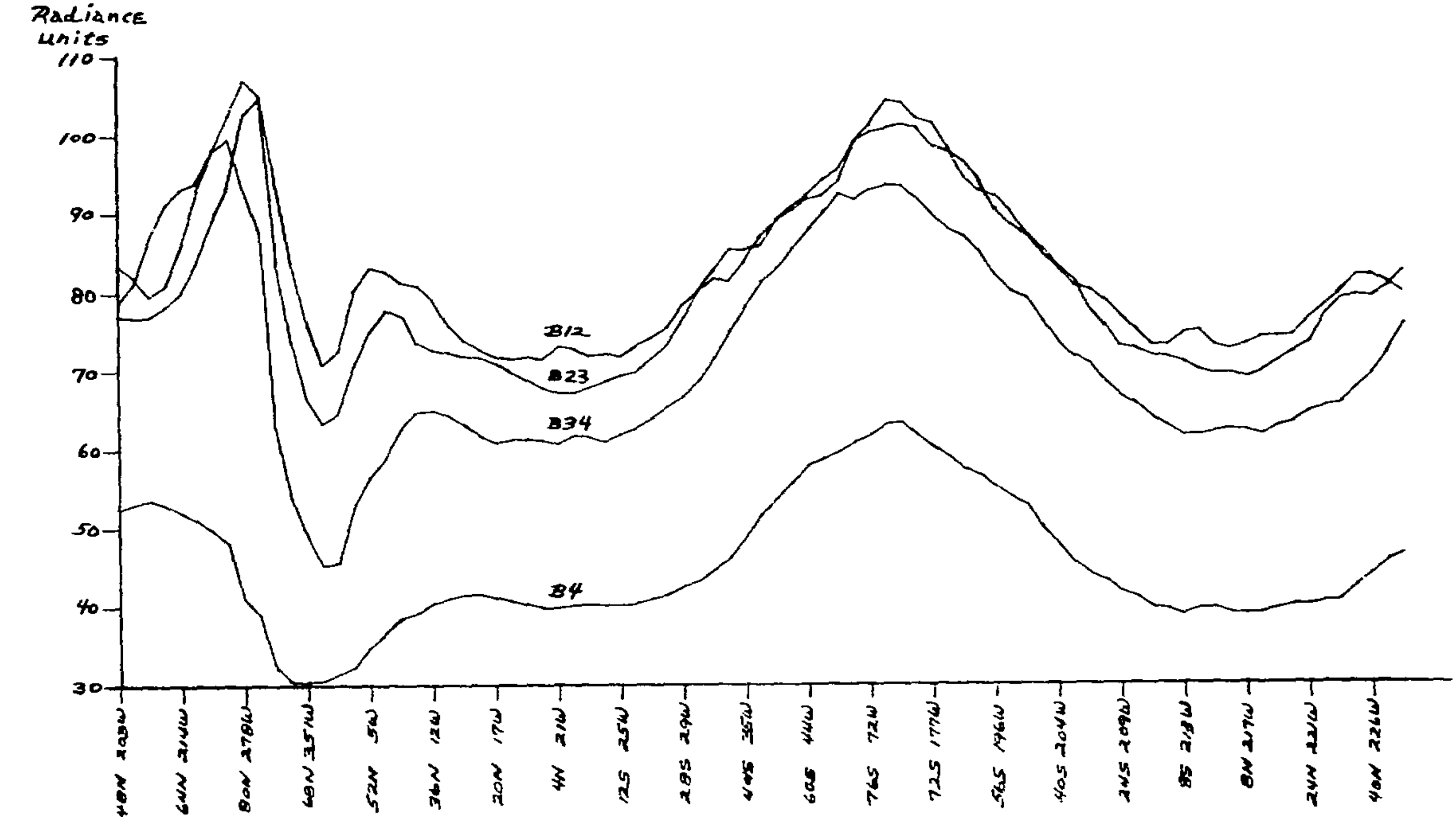

Figure 2. Nimbus 5 SCR-B radiances (without diurnal correction) from 1 January 1975 (00.13.36Z to 02.00.48Z).

The regular geometry of the Nimbus 5 orbit allowed the time and longitude of the 4^{o}-latitude-spaced points to be computed from the time and longitude of the node for that orbit. The time and longitude differences between each point and its node were found by averaging about 300 orbits near the end of 1974. The SCR-B data before 1975 had been available in a format that included identification information for each point.

B. Final Organization

For each 24-hour period a 5400-word array was generated. There was one slot in the array for each 16-second satellite observation interval, called a major frame. If the time corresponding to the first slot is known, the times of all slots are known since each one is 16 seconds after the one before. The array was positioned to cover the period from 12Z one day to 12Z the following day.

The 5400 words were first cleared to zero which represents "missing". Words corresponding to major frames without good data remain zero. Each major frame was then examined to determine if there were data worth keeping. A major frame was rejected if any of the radiances were missing, or if the time or position could not be determined. The following parameters were saved from a good SCR-B major frame: latitude, longitude, and radiances for Channels B12, B23, B34, and B4. The position of the major frame in the 5400-word array was determined from the time, and the parameters were stored in the appropriate word. When a new day was encountered, the 5400-word array was written to tape and the process was repeated for the new day.

IV. ERROR CHECKING

The data series had occasional errors which appeared as random spikes or sections of orbits which seemed to be mislocated. In a few cases complete days had invalid radiances. Errors were identified and removed by the following screening technique. Minima and maxima of all radiances in 16^{o} latitude belts were computed for each day. It was found that extremes for each latitude belt were very consistent from day to day except when errors in the data caused an unusual minimum or maximum. By examining the time series of minima and maxima it was possible to specify a range of allowable radiances for each channel for each day and latitude belt. Radiances outside the allowable ranges were removed.

V. REGRESSIONS

A. Rocket Data

One successful way to determine temperatures from radiances is by regression, as described in Reference 7. Regression coefficients were based upon a coincident set of Meteorological Rocket Network (MRN) and SCR data. The 13 MRN stations used, primarily from the NH, are listed in Table 2.

Rocket soundings were taken about once a week at each station, but rarely when the satellite was passing over the station; therefore, the number of coincident observations was quite small. The sample size was increased by forming a time series of all available satellite radiances at each of the rocket stations, as discussed in the next section. From the time series at a given station, radiance values were interpolated in time to coincide exactly with the times of the rocket firings. These space/time "coincident" data provided the data set for the regressions.

B. Time Series Generation

Nimbus 5 was a local noon/local midnight satellite. Any point on Earth, 80°N to 80°S, had one or more nearby daytime overpasses and one or more nearby nighttime overpasses. A data set was created which contained all the data available within "boxes", of size 6° latitude by 60° longitude, centered on each of the 13 rocket stations. From this SCR time series it was possible to interpolate, for each rocket station and for each day, a "daytime" radiance from the ascending orbits and a "nighttime" radiance from the descending orbits, as follows. For each orbit with data in a station box, an orbit value was generated by interpolating along the orbit to the station latitude. When orbit values existed on both sides of the station, a station value was generated by interpolating between the surrounding orbits. When orbit values existed on only one side of the station, the nearest orbit value was used. For each of the four radiance channels separate time series were obtained from daytime and nighttime conditions at each rocket location. Therefore, eight separate time series were obtained.

The time series of the daytime and nighttime radiances were plotted along with meteorological parameters from the actual rocket observations. These time plots were used for identifying erroneous rocket data

Table 2

Rocketsonde Stations Used for Regressions

Latitude Grouping	Station No.	Station Name	Latitude	Longitude
	04202	Thule	76.6N	68.8W
	70192	Poker Flat	65.0	147.5
High	72913 (71913)*	Ft. Churchill	58.7	93.8
	72124 (71124)*	Primrose Lake	54.8	110.1
	72402	Wallops Island	37.8	75.5
Mid	72391	Pt. Mugu	34.1	119.1
	72269	White Sands	32.4	106.5
	74794	Cape Canaveral	28.5	80.5
	91162	Barking Sands	22.0	159.8
	78861	Antigua	17.2	61.8
Low	78801	Ft. Sherman	9.3	80.0
	91366	Kwajalein	8.7	167.7E
	61902	Ascension	8.0S	14.4W

* Canadian stations changed numbers after June 1977

which were then eliminated from further consideration. Additionally, the plots served to verify that the radiances were well behaved.

We found that large differences sometimes existed between the daytime and nighttime radiances at a given place. These differences were larger than one would expect from diurnal atmospheric changes, and also varied with season and latitude. To remove this effect, monthly zonal means of diurnal differences for all four channels were computed. Then, interpolating in latitude and in time, we applied these differences to each ascending datum, effectively making each radiance a nighttime radiance.

C. Regression Development

The time series discussed in the last section were interpolated to the times of rocket firings. The interpolation was linear, and the maximum time separation of SCR data (for the purpose of interpolation to a rocket time between them) was 42 hours, with one exception: if the gap was larger than 42 hours, SCR data from an endpoint of the gap was assigned to the rocket time if the rocket-SCR time difference was less than 6 hours.

In order to develop consistent regression models, it was necessary to combine the rocket data into 3 sets which represented latitude regions near 60°N, 30°N and 10°N, termed "high", "mid", and "low" (Table 2). Further, the station groups were partitioned into warm and cold "seasons" of generally six months, which were chosen to take into account real atmospheric changes while allowing for changing instrument characteristics.

Several functions, X, of the SCR radiances were correlated with each desired atmospheric parameter. These SCR functions included the fourth roots of the radiances, as well as some products and ratios of the radiances.

In the regression development a standard screening procedure was used. First, for each atmospheric parameter (predictand), the most highly correlated function, X_1, was identified and the percent of predictand variance which it explained was calculated. Then the effect of X_1 was removed from all the other correlations and the next most highly correlated function, X_2, was identified and the additional percent of predictand variance which it explained was calculated. Previous experience with SCR-B (Reference 6) indicated that additional functions never led to a significant improvement over a two-function model. The model was therefore restricted to two functions, X_1 and X_2.

The form of model used was

$$\hat{P} = \bar{P} + A_1(X_1 - \bar{X}_1) + A_2(X_2 - \bar{X}_2) \qquad (1)$$

where $\hat{P}$ is the predictand,

$\bar{P}$ is the mean value of the predictand,

A_i is the coefficient of the i'th predictor, $X_i - \bar{X}_i$, and

$\bar{X}_i$ is the mean value of the i'th function.

The coefficients A were calculated from:

$$A_1 = \frac{\sigma(P)}{\sigma(X_1)} \cdot \frac{r(P,X_1) - r(P,X_2)\, r(X_1, X_2)}{1 - r(X_1, X_2)^2}$$

$$A_2 = \frac{\sigma(P)}{\sigma(X_2)} \cdot \frac{r(P,X_2) - r(P,X_1)\, r(X_1,X_2)}{1 - r(X_1, X_2)^2}$$

where σ denotes standard deviation and r denotes correlation coefficient.

Such models were generated for each predictand for each latitude region and season. One problem was that the two functions which explained the most variance of a particular predictand were not generally the same between latitude regions or seasons. However, in almost all cases, nearly as much variance could be explained by functions which were judiciously <u>specified</u> so that they varied smoothly in latitude and season. By varying smoothly is meant that one of the functions X must be the same for adjacent latitude regions in the same season or at adjacent seasons in the same latitude region. Although by specifying the model some theoretically explainable variance was lost, this method was preferred because it insured smoother derived meteorological parameters across time and latitude boundaries. Very little degradation of results for individual seasons or latitude regions was caused by the adoption of this restriction.

It should be noted that the secondary screening procedure was redone when the <u>specified</u> X_1 differed from the truly most highly correlated function. In this way the optimum choice for X_2 was assured.

Appendix B contains details of the models. The first group of entries for each level, latitude and season (called "Run 1") shows the functions used, predictor coefficients, and the percent variance explained by the model. See page B-1 for complete details of entries.

Also listed in Appendix B are results of tests of the model which were performed on independent data in the following manner: For each predictand, latitude and season, a model (using the specified functions) was developed from only 85 percent of the available rocket-SCR pairs (termed "dependent" data). This model was then used to compute the predictands from the remaining 15 percent of the radiances (termed "independent" data), which were then compared with the coincident rocket parameters. The mean error and the standard deviation of the error are given for five such tests, each of which used a different, randomly-chosen, 85 percent/15 percent combination of dependent/independent data. It is seen that neither the variance explained, nor the coefficients, vary greatly as a function of dependent data set, and that the standard deviation of error of the predictions is often considerably less than the standard deviation of the dependent (rocket) data.

These independent data tests were also useful in determining whether the prescribed X_1 and X_2 were actually as good as their "percent variance explained" advertised them to be. Often, a model which was slightly inferior in terms of percentage variance explained, but which was more consistent with respect to its neighbors (in latitude and season), could be shown to be of equivalent quality when applied to independent data. In these cases the more consistent model was the one finally used.

The arithmetic average of the standard deviations of the errors of the five independent data tests at 10 mb is 3.2°K, increasing upward to 5.1°K at 0.4 mb, for the period January 1977 - April 1978. See Sec. VIII.

Grids of NMC 10-mb temperature are generally available north of 20°N. NMC and MRN 10-mb temperatures do not always agree, although they may be correlated, and after investigation it was decided to use MRN as the standard at 10 mb. Further, it was found that NMC 10-mb temperature sometimes improved the prediction of temperature at 10 mb and other levels as measured by the percent of explained variance. Therefore, a second set of models was developed for the middle and high latitudes of the Northern Hemisphere allowing NMC 10-mb temperature as a possible predictor. Appendix BB shows details of the performance of the regressions when and where NMC

10-mb temperature is a useful predictor. For example, the prediction of temperature at 10 mb was improved by about one-third degree due to use of NMC 10-mb temperature.

VI. APPLICATION TO SCR-B ORBITAL DATA

A. Method

The models discussed in the last section were used to calculate atmospheric parameters from SCR-B orbital data. A full set of atmospheric parameters was computed for every major frame having data, with the data first being corrected for zonal monthly mean diurnal radiance differences, as explained in Section V-A. Several decisions were required concerning smoothing, use of 10-mb (NMC) data, and Southern Hemisphere processing, and these are outlined below.

B. Smoothing

It was desirable to insure smooth transitions of computed atmospheric parameters across time and latitude boundaries. The time boundaries are shown in Appendix B; the latitude boundaries in the NH were chosen to be 22.5°N and 42.5°N (SH processing is discussed later). Smoothness in latitude was accomplished by 1) computing the parameter using both sets of statistics within a ± 2½ degree "window" of the boundary, and 2) forming an appropriately weighted average based on location relative to the boundary. Smoothing across time boundaries followed the same procedure, with the "window" being ± 4 days.

C. Use of 10-mb (NMC) Data

Temperature at 10 mb on the 1977-point NMC grid was available, and when required it was used as a predictor of parameters north of 20°N. Since the NMC grid was only available once a day (12Z), 10-mb temperatures were linearly interpolated in time and space to the sub-satellite points. The maximum gap over which interpolation was allowed was 48 hours (1 missing day); for longer gaps the regression models not using 10-mb temperatures were used.

D. Southern Hemisphere Processing

No extratropical SH rocket stations had enough observations to allow stable regressions with SCR data. It was therefore necessary to apply, in the SH mid-latitudes (22.5°S to 42.5°S) and high latitudes (poleward of 42.5°S), models based on NH regressions in the appropriate time of year.

In the SH tropics, the same regression model was used as in the NH tropics. No 6-month time shift was applied, since the amplitude of the annual wave in temperature is small (less than 2°K from 10 mb to 1 mb and less than 4°K at 0.4 mb) in the tropics (Reference 8).

Procedures to assure smoothness over the time and latitude boundaries were the same for the SH as for the NH.

VII. SPACE-TIME INTERPOLATION OF TEMPERATURE

The temperatures retrieved along the orbits via the regression technique described earlier were gridded using a space-time interpolation scheme. The entire period from January 1975 through April 1978 was processed at one time. Temperature regressions for the period January 1975 through December 1976 are described in Reference 9 while those from the latter period (January 1977 through April 1978) are described in this report.

Space-time interpolated temperature grids were made from 18-day sequences of orbits (12Z day N to 12Z day N + 18) processed as follows: Along each orbit, the temperatures were linearly interpolated to an 18-point latitude grid (-79, -75, -65, ..., 65, 75, 79). No interpolation was done, however, where a gap in the orbital data exceeded five minutes (about 2000 km); gridpoints within such gaps were left blank. Similar processing of successive orbits yielded two longitude/time series at each latitude circle, one from ascending, and one from descending portions of orbits. For each of these 18-day time series on each latitude circle, interpolation to a 20-degree longitude grid was performed, using cubic splines. No interpolation was done where gaps in orbital crossings of the latitude circle exceeded 90 degrees longitude. With orbital separation of approximately 27 degrees, this meant that interpolation was not done across three or more missing orbits.

At this stage of the processing, there were two time series for each longitude gridpoint on any latitude circle. At low and mid latitudes a "descending" value followed an "ascending" value by about 12 hours; at high latitudes, the separation was somewhat less symmetric. For each latitude circle, the two time series were merged and interpolated to a 15-point time "grid", which was 12Z day N+2 to 12Z day N+16, again using cubic splines. No interpolation was done across time gaps of more than 50

hours. It is seen that the 18-day data series extended 2 days beyond the time grid in either direction, insuring that the time interpolated fields were not adversely affected by errors near the endpoints.

Processing the entire period of data was simply a matter of repeating this process for many 18-day data series.

Poleward of $\pm 75^{0}$, the Nimbus orbits were oriented more east-west than north-south. Therefore, at $\pm 79^{0}$, it seemed prudent to use the interorbit variation to interpolate in latitude, and intraorbit variation to interpolate in longitude, i. e., precisely the reverse of the procedure used at other latitudes.

The space-time interpolation procedure uses cubic splines to interpolate in longitude and time. The cubic spline function required an input data "string" of at least 5 points, with gaps no longer than 90 degrees (for the longitude interpolation case) or 50 hours (for the time interpolation case). Therefore, whenever 2 or more consecutive days without data were encountered, the input data string was terminated. When such data gaps were so close as to leave fewer than 5 data points in the string, then no interpolation was done at all. As a result of this missing data, interpolated values exist for only 65 per cent of the days in the Jan. 75-Apr. 78 period. Due to the incomplete spatial coverage, even during the days with data, many space-time interpolated gridpoints remain blank. This seems to occur most frequently over the North Pacific Ocean.

VIII. DISCUSSION OF ERRORS

A. Scales of vertical structure

The errors shown in the appendices represent differences between model-derived temperatures and actual temperatures as observed by rocketsondes. Rocketsonde data contain much small-scale structure. Given their broad weighting functions, the SCR radiances cannot possibly reveal such structure. A portion of the error, therefore, is really due to the amount of detail in the rocketsondes, and comparing the retrieved temperatures with smoothed rocketsondes would have yielded smaller errors.

It would also have been possible to smooth the rocket profiles before developing the regression models. Such smoothing would not have significantly affected the model coefficients or the results since the removed small scale features are not well correlated with anything in the radiance data. However, the retrieved temperatures compared with those smoothed rocketsonde data would have shown higher accuracy than the accuracies given in the appendices, which reflect comparisons with unsmoothed rocketsonde data. Since the method of smoothing is a subjective matter, smoothing was not done in the present work. However, some experiments have been carried out using a filter which only passes structures of vertical wave length which can be detected by a typical SCR radiance channel. This smoothing, done on a few stations during one 6-month "winter" interval, was found to decrease the data variance at the levels of interest by 20-80%, with the largest decrease occurring at low latitudes. The percentage of explained variance for retrievals using such smoothed rocketsonde data would likely be at least 80-90% at all latitudes. This experiment used a high degree of smoothing; lesser smoothing would have a less marked, but still substantial, effect on retrieval errors.

B. Scales of temporal and horizontal structure

This data may be considered for use in studies to define amplitudes and phases of periods ranging from a few days to many years. Some such waves may have amplitudes which are comparable to the retrieval errors as reported in the appendices, and this fact would of course lessen confidence in the results of such studies. However, it is important to note that individual errors can be lowered considerably by averaging or performing spectral analysis on long data series. For example, if one makes the assumption that the errors are independent from day-to-day, then the standard error of a 30-day mean is less than the standard error of an individual observation by the factor $\sqrt{30}$. Similar arguments can be made concerning averaging in the horizontal. The degree of error independence in time or space is a question outside the scope of the present task. However, it appears that consideration of error lessening through averaging makes the present data set appropriate for many scientific studies.

IX. REFERENCES

1. Smith, W. L., H. M. Woolf, and W. J. Jacob, 1970: A regression method for obtaining real-time temperature and geopotential height profiles from satellite spectrometer measurements and its application to Nimbus 3 "SIRS" observations. Mon. Wea. Rev., 98, pp 582-603.

2. Hirota, I., 1979: Kelvin waves in the equatorial middle atmosphere observed by Nimbus-5 SCR. J. Atmos. Sci., 36, pp 217-222.

3. Oxford University, 1976: The Nimbus 5 Selective Chopper Radiometer. Atmospheric Physics Memorandum No. 76.1.

4. Oxford University, 1974: The Selective Chopper radiometer on Nimbus 5 - Magnetic Tapes. Atmospheric Physics Memorandum No. 74.2.

5. Hovland, D. and R. Wilcox, 1979: Statistical retrieval of temperatures from SCR-A from 10 to 0.4 mb. Interim report, Contract NAS5-23538 with NASA-Goddard Space Flight Center, Washington, D.C.

6. Hovland, D. and R. Wilcox, 1979: Statistical retrieval of temperatures from SCR-B, at 10 to 0.4 mb. Interim report, Contract F49620-77-C-0036 with Air Force Office of Scientific Research, Washington, D. C. Avail. NTIS AD-A077 359/8.

7. Werbowetzki, A., 1975: Indirect sounding of the atmosphere from NOAA spacecraft -- regression after categorization method and results. Fourth Conference on Probability and Statistics in Atmospheric Sciences, November 18-21, 1975. Tallahassee, Florida. American Meteorological Society.

8. Nastrom, G. D., and A. D. Belmont, 1975: Periodic variations in stratospheric- mesospheric temperature from 20 - 65 km at 80°N to 30°S. J. Atmos. Sci., 32, pp 1715-1722.

9. Roe, J., D. Hovland, and R. Wilcox, 1982: Statistical retrieval of temperatures at 10 to 0.4 mb from SCR-B, 1975-1976. Final report, Contract NAS5-26252 with NASA-Goddard Space Flight Center, Washington, D.C.

APPENDICES A, AA, B, AND BB

INTRODUCTION

APPENDIX A

Statistical accuracy of temperature retrievals from SCR-A radiances at Meteorological Rocket Network locations, not using 10 mb NMC temperature as a predictor. These tables show the regressions used for the regions south of 20°N. Dates are Julian.

APPENDIX AA

Statistical accuracy of temperature retrievals from SCR-A radiances at Meteorological Rocket Network locations, using 10 mb NMC temperature as a predictor. These tables show regressions used north of 20°N. Tables differ from Appendix A only where "11" is indicated as a predictor. Only those pages are reproduced that contain different entries from Appendix A. Dates are Julian.

APPENDIX B

Statistical accuracy of temperature retrievals from SCR-B radiances at Meteorological Rocket Network locations, not using 10 mb NMC temperature as a predictor. These tables show the regressions used for the regions south of 20°N. Dates are Julian.

APPENDIX BB

Statistical accuracy of temperature retrievals from SCR-B radiances at Meteorological Rocket Network locations, using 10 mb NMC temperature as a predictor. These tables show regressions used north of 20°N. Tables differ from Appendix B only where "2" is indicated as a predictor. Only those pages are reproduced that contain different entries from Appendix B. Dates are Julian.

EXPLANATORY NOTES FOR APPENDICES A AND AA

Accuracy of Temperature Retrievals from SCR-A Radiances at MRN Locations

1. Regression models for temperatures at 10, 5, 2, 1, and 0.4 mb, developed using all available rocket data, are shown in run 1. These models were then tested as follows:

   a. For each station group and period, a randomly chosen 15 per cent of the available MRN observations were set aside to serve as an independent test set, and the remaining 85 per cent were used to develop a regression model.

   b. This regression model was applied to the radiances occurring at the other 15 per cent of the MRN locations and times, with a resulting mean error and standard deviation of the error as shown in the listing.

   c. Steps a and b were repeated for four more, different, sets of random data. These five verification tests are shown under runs 2 - 6.

2. Explanation of printout tables:

A	B	D	F	I
	C	E	G	J
			H	K

A = Run Number
B = Primary predictor (see 3 below) used in the model
C = Secondary predictor used in the model
D = Variance explained by a model which uses only the primary predictor*
E = Variance explained by the full, 2 - predictor, model*
F = Mean of the rocket data used in the model, $\overline{P}$ (see eq. (1) in text)
G = Coefficient of the primary predictor, A_1
H = Coefficient of the secondary predictor, A_2
I = Number of observations (run 1), number of independent cases tested (runs 2 - 6)
J = Mean error of the independent cases (^{o}K). Applies only to runs 2 - 6
K = Standard deviation (^{o}K) of all the rocket data (for run 1); standard deviation (^{o}K) of the error for the independent test cases (for runs 2 - 6)

3. Explanation of predictors. Note: R_1 = Ch A radiance, R_2 = Ch B radiance

$2 = R_1$	$7 = R_2^{\frac{1}{2}}$
$3 = R_2$	$8 = R_1^{\frac{1}{4}}$
$4 = R_1^{2}$	$9 = R_2^{\frac{1}{4}}$
$5 = R_2^{2}$	$10 = R_1 \cdot R_2$
$6 = R_1^{\frac{1}{2}}$	11 = 10 mb temp

* See page A-8

10.0 MB TEMPERATURE

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	9 56. 241.2 83 5 58. .202E+3 0.0 -.109E-1 6.1	9 73. 219.1 115 10 76. .113E+3 0.0 -.257E-2 10.4	9 78. 238.1 108 4 79. .117E+3 0.0 -.136E-2 7.2	9 79. 220.4 116 10 80. .916E+2 0.0 -.611E-3 6.6
2	9 54. 241.0 12 5 55. .185E+3 .9 -.960E-2 3.6	9 73. 219.2 15 10 74. .111E+3 -.4 -.238E-2 2.3	9 77. 238.1 15 4 78. .121E+3 .3 -.158E-2 2.2	9 77. 219.9 20 10 77. .912E+2 .8 -.689E-3 3.3
3	9 58. 241.5 14 5 64. .206E+3 -.2 -.174E-1 6.0	9 75. 219.1 17 10 75. .990E+2 -.9 -.979E-3 6.5	9 76. 237.5 18 4 77. .112E+3 .9 -.123E-2 3.0	9 85. 220.6 15 10 85. .966E+2 -1.4 -.809E-3 6.9
4	9 56. 241.0 15 5 59. .192E+3 .4 -.102E-1 3.9	9 70. 219.3 17 10 72. .112E+3 .6 -.266E-2 2.7	9 76. 237.7 14 4 78. .118E+3 1.3 -.147E-2 3.2	9 79. 220.7 17 10 79. .870E+2 -.3 -.239E-4 3.4
5	9 55. 240.9 10 5 57. .180E+3 .1 -.911E-2 4.0	9 72. 219.0 15 10 74. .114E+3 1.3 -.274E-2 3.0	9 78. 238.2 20 4 80. .114E+3 -.2 -.130E-2 3.4	9 77. 220.7 19 10 77. .854E+2 -.3 -.225E-3 3.3
6	9 54. 240.8 9 5 56. .204E+3 1.2 -.111E-1 3.1	9 72. 219.6 12 10 73. .104E+3 -.5 -.168E-2 4.1	9 79. 238.1 11 4 80. .117E+3 -.6 -.136E-2 4.1	9 78. 220.4 11 10 78. .870E+2 -.7 -.308E-3 3.7

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	9 20. 236.9 213 10 21. .757E+2 0.0 .263E-2 3.5	9 38. 230.8 268 10 47. .281E+3 0.0 -.729E-2 5.2	9 21. 236.1 257 5 22. .843E+3 0.0 -.642E-1 3.0	9 19. 229.9 256 10 31. .127E+3 0.0 -.410E-2 3.9
2	9 20. 236.8 36 10 21. .878E+2 .1 .175E-2 3.1	9 38. 230.9 47 10 46. .200E+3 -.4 -.719E-2 3.5	9 24. 236.2 46 5 26. .920E+3 -.5 -.725E-1 2.6	9 20. 230.0 47 10 33. .133E+3 -.0 -.414E-2 3.2
3	9 18. 237.0 26 10 18. .826E+2 -.5 .191E-2 2.1	9 37. 230.7 40 10 45. .195E+3 .7 -.673E-2 3.7	9 20. 235.9 37 5 21. .742E+3 1.1 -.509E-1 3.3	9 18. 229.9 34 10 30. .133E+3 .1 -.435E-2 2.1
4	9 23. 237.1 34 10 24. .781E+2 -1.2 .296E-2 3.1	9 37. 231.0 42 10 49. .216E+3 -1.4 -.826E-2 3.2	9 21. 236.2 39 5 23. .116E+4 -.1 -.913E-1 2.4	9 19. 229.7 46 10 33. .121E+3 .4 -.405E-2 4.0
5	9 18. 236.9 27 10 20. .503E+2 -.0 .344E-2 4.0	9 35. 230.6 43 10 43. .174E+3 .7 -.601E-2 4.1	9 22. 236.1 40 5 22. .639E+3 .0 -.485E-1 2.5	9 17. 229.9 32 10 28. .123E+3 -.0 -.397E-2 2.7
6	9 23. 237.0 23 10 23. .956E+2 .4 .194E-2 2.7	9 39. 230.8 31 10 47. .202E+3 -.4 -.731E-2 3.0	9 21. 236.2 24 5 22. .773E+3 -.6 -.603E-1 2.6	9 20. 229.6 26 10 32. .130E+3 -.0 -.421E-2 2.6

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	9 13. 237.3 240 10 14. .902E+2 0.0 -.240E-2 3.0	9 29. 236.3 240 4 32. .967E+2 0.0 -.919E-3 3.7	9 30. 234.2 283 4 31. .114E+3 0.0 -.745E-3 3.2	9 7. 234.0 181 10 12. .987E+2 0.0 -.319E-2 3.6
2	9 14. 237.4 38 10 15. .982E+2 -.4 -.271E-2 2.4	9 30. 236.4 42 4 34. .968E+2 -.7 -.991E-3 3.3	9 31. 234.2 51 4 33. .123E+3 -.3 -.102E-2 2.6	9 8. 234.0 32 10 21. .116E+3 .3 -.440E-2 5.2
3	9 11. 237.4 37 10 12. .736E+2 -.5 -.147E-2 2.3	9 27. 236.5 36 4 31. .922E+2 -.9 -.104E-2 3.5	9 31. 234.1 44 4 32. .113E+3 .7 -.772E-3 3.2	9 12. 234.0 29 10 21. .117E+3 .7 -.387E-2 5.1
4	9 13. 237.2 40 10 15. .115E+3 .6 -.422E-2 3.3	9 29. 236.4 37 4 33. .102E+3 .4 -.104E-2 3.1	9 31. 234.3 45 4 32. .116E+3 -.0 -.676E-3 2.5	9 6. 234.0 27 10 12. .101E+3 -.0 -.342E-2 2.7
5	9 13. 237.4 34 10 14. .104E+3 -.0 -.342E-2 2.9	9 26. 236.4 39 4 28. .894E+2 -.1 -.659E-3 3.0	9 30. 234.1 40 4 32. .119E+3 .1 -.844E-3 3.0	9 6. 234.0 30 10 10. .910E+2 -.1 -.276E-2 2.3
6	9 14. 237.3 26 10 15. .840E+2 .4 -.187E-2 3.2	9 31. 236.5 29 4 35. .108E+3 -1.3 -.974E-3 3.3	9 30. 234.1 34 4 31. .112E+3 .6 -.878E-3 3.3	9 7. 234.0 19 10 11. .947E+2 -.1 -.280E-2 2.3

5.0 mb TEMPERATURE

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	10	61.	254.8	81	9	83.	224.0	115	5	79.	251.6	107	7	79.	225.7	118
	8	61.	.497E-2	0.0	8	85.	.876E+2	0.0	8	79.	.693E-2	0.0	8	83.	.147E+2	0.0
			.898E+1	7.0			.194E+2	11.9			.148E+2	7.9			.226E+2	9.6
2	10	57.	254.8	12	9	83.	224.2	16	5	79.	251.6	14	7	79.	225.0	21
	8	57.	.471E-2	.3	8	85.	.876E+2	.1	8	79.	.672E-2	.2	8	83.	.152E+2	1.6
			.782E+1	4.6			.207E+2	3.3			.141E+2	3.0			.222E+2	4.0
3	10	61.	255.0	13	9	83.	223.7	16	5	79.	250.8	17	7	77.	225.8	15
	8	62.	.404E-2	.4	8	86.	.834E+2	-.2	8	80.	.583E-2	.8	8	82.	.147E+2	.5
			.249E+2	4.6			.240E+2	6.7			.277E+2	4.9			.226E+2	3.6
4	10	61.	254.5	15	9	81.	224.6	18	5	77.	251.0	14	7	79.	226.1	17
	8	61.	.493E-2	.7	8	83.	.843E+2	-.2	8	78.	.586E-2	.9	8	83.	.144E+2	-.7
			.743E+1	3.9			.214E+2	4.2			.271E+2	3.8			.234E+2	4.8
5	10	62.	254.5	10	9	83.	223.7	14	5	79.	251.6	20	7	78.	225.6	15
	8	62.	.556E-2	-.5	8	85.	.890E+2	2.4	8	79.	.606E-2	.1	8	83.	.145E+2	1.4
			.623E+0	5.4			.187E+2	3.8			.197E+2	3.9			.231E+2	3.8
6	10	60.	254.4	9	9	82.	224.1	12	5	80.	251.4	11	7	78.	225.8	11
	8	60.	.519E-2	.3	8	84.	.835E+2	.9	8	80.	.649E-2	-.8	8	83.	.141E+2	-1.9
			.623E+1	4.0			.216E+2	4.9			.148E+2	4.7			.231E+2	5.1

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	10	20.	247.3	213	5	55.	245.7	272	5	39.	247.2	264	5	47.	240.0	257
	5	20.	.884E-2	0.0	8	58.	.125E-1	0.0	8	39.	.111E-1	0.0	8	48.	.114E-1	0.0
			-.108E-2	4.4			.387E+2	8.0			.691E+1	4.0			.101E+2	6.3
2	10	21.	247.2	38	5	51.	246.0	48	5	44.	247.2	48	5	48.	240.6	47
	5	21.	.885E-2	-.1	8	53.	.122E-1	-.6	8	44.	.119E-1	-.4	8	49.	.115E-1	-1.6
			-.949E-3	4.3			.378E+2	3.8			.120E+1	4.0			.101E+2	4.9
3	10	20.	247.3	26	5	53.	245.5	40	5	38.	246.9	37	5	47.	240.0	35
	5	20.	.887E-2	-.3	8	55.	.122E-1	1.4	8	38.	.107E-1	1.3	8	47.	.117E-1	.9
			-.589E-3	2.7			.434E+2	3.9			.745E+1	2.7			.102E+2	3.3
4	10	24.	247.4	35	5	53.	245.7	40	5	35.	247.2	40	5	49.	239.9	45
	5	24.	.951E-2	-.6	8	55.	.119E-1	-.6	8	36.	.101E-1	.0	8	50.	.114E-1	-1.0
			-.122E-2	4.1			.384E+2	4.4			.129E+2	2.8			.110E+2	4.8
5	10	19.	247.2	26	5	55.	245.4	45	5	39.	247.1	42	5	44.	240.2	32
	5	20.	.101E-1	.1	8	58.	.116E-1	2.0	8	39.	.115E-1	.5	8	45.	.103E-1	-1.0
			-.418E-2	4.3			.425E+2	5.2			.760E+1	2.6			.124E+2	4.4
6	10	23.	247.3	23	5	55.	245.8	29	5	39.	247.1	25	5	48.	240.1	25
	5	23.	.805E-2	.1	8	57.	.126E-1	-1.0	8	39.	.111E-1	-.5	8	49.	.117E-1	-1.2
			.108E-2	4.6			.396E+2	3.8			.710E+1	2.6			.953E+1	3.9

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	5	26.	247.7	235	5	42.	247.7	242	5	34.	246.1	284	5	41.	245.1	181
	8	26.	.908E-2	0.0	8	42.	.112E-1	0.0	8	34.	.115E-1	0.0	8	45.	.109E-1	0.0
			.406E+1	3.7			-.501E+1	4.4			.146E+2	4.3			.332E+2	5.6
2	5	26.	247.6	38	5	45.	247.9	41	5	37.	246.1	51	5	48.	244.8	31
	8	26.	.911E-2	.2	8	45.	.114E-1	-1.2	8	38.	.121E-1	-.6	8	53.	.111E-1	1.1
			.181E+1	3.1			-.522E+1	3.6			.185E+2	3.8			.335E+2	5.9
3	5	27.	247.8	35	5	42.	247.6	37	5	33.	245.9	41	5	43.	245.1	29
	8	27.	.966E-2	-.8	8	42.	.110E-1	.4	8	33.	.118E-1	1.0	8	46.	.110E-1	.4
			-.337E+1	3.6			-.551E+1	3.4			.115E+2	3.1			.273E+2	5.5
4	5	26.	247.6	40	5	40.	247.9	38	5	37.	246.2	43	5	39.	244.8	27
	8	26.	.901E-2	.2	8	40.	.113E-1	-.5	8	37.	.118E-1	-.3	8	42.	.107E-1	.7
			.784E+1	3.2			-.371E+1	2.7			.181E+2	3.9			.317E+2	3.2
5	5	26.	247.7	34	5	43.	247.6	40	5	34.	245.9	42	5	40.	245.1	31
	8	26.	.965E-2	.7	8	44.	.110E-1	.8	8	34.	.123E-1	-.0	8	44.	.114E-1	-.0
			-.213E+1	3.2			-.342E+1	4.2			.737E+1	3.9			.304E+2	4.4
6	5	23.	247.6	26	5	46.	247.7	29	5	33.	246.1	31	5	42.	245.2	19
	8	23.	.889E-2	.4	8	46.	.115E-1	-.3	8	33.	.169E-1	-.7	8	44.	.118E-1	-1.0
			-.397E-2	2.7			-.369E+1	4.0			.185E+2	3.7			.283E+2	2.6

2.0 MB TEMPERATURE

STATIONS 94202 70266 72913 74124 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	8	61.	272.6	78	8	74.	235.1	110	8	70.	271.6	106	8	67.	239.3	115
	5	64.	.694E+2	0.0	9	81.	.533E+2	0.0	5	70.	.773E+2	0.0	9	72.	.566E+2	0.0
			.211E-2	7.7			.471E+2	11.8			.898E-3	7.6			.332E+2	9.8
2	8	57.	272.8	11	8	73.	235.1	18	8	73.	271.3	14	8	69.	238.2	21
	5	58.	.670E+2	-.1	9	81.	.510E+2	2.1	5	73.	.778E+2	2.2	9	74.	.574E+2	4.2
			.130E-2	5.4			.499E+2	3.6			.918E-3	4.2			.337E+2	5.0
3	8	64.	272.9	13	8	74.	234.8	17	8	69.	271.1	16	8	69.	239.6	15
	5	66.	.765E+2	.3	9	80.	.580E+2	.2	5	69.	.848E+2	.6	9	73.	.605E+2	.4
			.199E-2	4.6			.441E+2	5.8			-.155E-3	4.3			.271E+2	5.9
4	8	61.	272.5	15	8	74.	235.5	17	8	71.	271.1	15	8	65.	239.8	17
	5	63.	.660E+2	-.0	9	79.	.541E+2	.4	5	71.	.842E+2	1.4	9	70.	.552E+2	-1.1
			.217E-2	3.9			.397E+2	6.4			.120E-3	4.8			.318E+2	5.5
5	8	62.	272.5	9	8	74.	235.2	15	8	65.	271.8	19	8	70.	239.5	17
	5	66.	.657E+2	-1.8	9	82.	.524E+2	-.2	5	66.	.894E+2	-1.3	9	73.	.599E+2	.1
			.268E-2	5.8			.515E+2	5.6			.119E-2	3.3			.262E+2	5.8
6	8	60.	272.1	8	8	74.	235.5	11	8	72.	271.4	11	8	67.	239.4	11
	5	62.	.719E+2	.2	9	81.	.539E+2	-.6	5	72.	.810E+2	.5	9	72.	.561E+2	-2.0
			.193E-2	4.0			.449E+2	5.6			.813E-3	5.0			.325E+2	5.2

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	10	29.	265.0	207	10	28.	265.6	276	10	38.	264.5	267	10	62.	259.3	262
	8	30.	.608E-2	0.0	8	42.	-.859E-2	0.0	8	39.	.175E-1	0.0	8	62.	.617E-2	0.0
			.526E+2	4.8			.178E+3	6.9			-.472E+2	4.8			.380E+2	8.7
2	10	31.	264.7	37	10	26.	266.0	49	10	40.	264.6	48	10	60.	259.6	47
	8	33.	.619E-2	.8	8	38.	-.762E-2	-1.2	8	41.	.146E-1	-1.1	8	60.	.458E-2	.1
			.594E+2	4.1			.163E+3	5.1			-.716E+2	3.9			.491E+2	5.4
3	10	27.	265.1	26	10	32.	265.6	42	10	37.	265.0	36	10	61.	259.5	37
	8	27.	.675E-2	-.7	8	42.	-.633E-2	-.1	8	38.	.102E-1	1.7	8	62.	.518E-2	-.3
			.453E+2	2.7			.157E+3	5.9			-.248E+2	4.1			.486E+2	4.8
4	10	34.	265.1	33	10	26.	265.6	40	10	38.	264.5	40	10	62.	259.3	44
	8	34.	.981E-2	-.5	8	40.	-.872E-2	-.1	8	39.	.133E-1	-.1	8	63.	.613E-2	-1.3
			.184E+2	4.8			.177E+3	4.3			-.572E+2	4.0			.372E+2	5.5
5	10	27.	265.0	26	10	29.	265.5	45	10	39.	264.5	41	10	62.	259.3	33
	8	30.	.204E-2	-.8	8	47.	-.106E-1	.9	8	39.	.131E-1	-.2	8	62.	.743E-2	.6
			.889E+2	5.0			.203E+3	5.8			-.534E+2	3.4			.265E+2	4.9
6	10	34.	265.1	24	10	26.	265.7	29	10	38.	264.6	25	10	61.	259.4	24
	8	34.	.841E-2	-.1	8	40.	-.983E-2	-1.1	8	39.	.127E-1	-.5	8	61.	.607E-2	-.5
			.324E+2	5.5			.183E+3	4.2			-.525E+2	4.3			.385E+2	3.6

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273				70/274 - 71/090				71/091 - 71/273				71/274 - 72/107			
1	10	21.	265.4	233	10	41.	267.7	240	10	24.	264.3	283	10	51.	265.9	182
	8	22.	.109E-1	0.0	8	41.	.945E-2	0.0	8	24.	.634E-2	0.0	8	52.	.102E-1	0.0
			-.564E+2	4.2			-.927E+1	5.1			.938E+1	4.1			-.310E+2	4.8
2	10	21.	265.5	37	10	41.	267.6	42	10	27.	264.4	49	10	52.	265.8	31
	8	22.	.110E-1	-.8	8	41.	.904E-2	.7	8	27.	.725E-2	-.4	8	52.	.975E-2	-.1
			-.554E+2	3.0			-.660E+1	3.8			.421E+1	3.6			-.233E+2	2.9
3	10	24.	265.4	34	10	39.	267.8	36	10	21.	264.0	41	10	50.	265.9	29
	8	26.	.109E-1	-.1	8	39.	.100E-1	.2	8	21.	.619E-2	1.4	8	52.	.108E-1	.4
			-.692E+2	6.6			-.180E+2	3.4			.702E+1	3.0			-.380E+2	3.1
4	10	20.	265.4	40	10	42.	268.1	39	10	27.	264.5	44	10	52.	265.8	27
	8	20.	.104E-1	-.4	8	42.	.897E-2	-.9	8	27.	.685E-2	-.9	8	53.	.102E-1	-.5
			-.522E+2	3.3			-.514E+1	4.6			.172E+2	4.2			-.282E+2	2.9
5	10	21.	265.4	31	10	42.	267.6	40	10	21.	265.1	44	10	50.	265.8	32
	8	22.	.117E-1	.7	8	42.	.990E-2	1.1	8	21.	.440E-2	.2	8	51.	.102E-1	.3
			-.661E+2	3.4			-.136E+2	3.9			.278E+2	3.5			-.215E+2	3.6
6	10	19.	265.3	25	10	42.	267.7	28	10	24.	264.3	33	10	49.	266.0	19
	8	21.	.117E-1	.6	8	42.	.991E-2	.8	8	24.	.688E-2	-.3	8	50.	.966E-2	-1.0
			-.715E+2	3.7			-.140E+2	3.9			.749E+1	2.8			-.267E+2	2.5

1.0 MB TEMPERATURE

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273				PERIOD 70/274 - 71/090				PERIOD 71/091 - 71/273				PERIOD 71/274 - 72/107			
1	8	73.	277.4	67	8	42.	246.3	107	8	69.	277.5	100	8	35.	252.3	112
	9	76.	.612E+2	0.0	4	53.	.208E+3	0.0	9	70.	.825E+2	0.0	9	36.	.473E+2	0.0
			.240E+2	5.8			-.113E-1	11.2			-.732E+1	6.6			.102E+2	9.7
2	8	74.	277.5	6	8	44.	246.8	16	8	70.	277.5	14	8	36.	251.6	19
	9	75.	.706E+2	.0	4	55.	.203E+3	4.2	9	70.	.728E+2	.1	9	36.	.525E+2	2.6
			.137E+2	3.1			-.113E-1	6.2			.219E+1	3.4			.434E+1	6.7
3	8	74.	277.4	11	8	40.	246.3	17	8	72.	277.0	15	8	36.	252.7	15
	9	76.	.631E+2	-.4	4	45.	.165E+3	.1	9	72.	.866E+2	1.3	9	37.	.485E+2	-.9
			.248E+2	1.6			-.875E-2	5.3			-.428E+1	4.2			.109E+2	7.2
4	8	75.	277.5	13	8	38.	246.6	17	8	67.	277.4	15	8	31.	252.7	16
	9	78.	.616E+2	-.9	4	51.	.207E+3	1.5	9	68.	.900E+2	-1.1	9	31.	.459E+2	-1.3
			.253E+2	2.5			-.122E-1	8.9			-.146E+2	2.5			.540E+1	8.2
5	8	72.	276.9	7	8	44.	246.6	14	8	66.	277.7	19	8	37.	252.0	17
	9	76.	.586E+2	1.3	4	54.	.201E+3	-2.1	9	66.	.837E+2	-1.1	9	37.	.512E+2	3.0
			.261E+2	2.7			-.113E-1	7.7			-.897E+1	2.7			.273E+1	7.4
6	8	71.	277.0	7	8	40.	246.8	11	8	69.	277.3	10	8	36.	252.5	10
	9	73.	.619E+2	.1	4	48.	.180E+3	-3.8	9	69.	.859E+2	2.5	9	36.	.493E+2	-2.2
			.214E+2	2.5			-.108E-1	6.9			-.125E+2	3.7			.325E+1	9.7

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273				PERIOD 70/274 - 71/090				PERIOD 71/091 - 71/273				PERIOD 71/274 - 72/107			
1	8	24.	270.6	189	8	2.	269.8	269	8	20.	270.3	260	8	28.	267.4	253
	4	25.	.595E+3	0.0	4	2.	.321E+2	0.0	9	21.	.518E+2	0.0	10	28.	.671E+2	0.0
			-.249E-1	4.4			-.879E-3	4.9			.273E+2	4.3			-.234E-2	6.1
2	8	25.	270.3	32	8	2.	269.9	46	8	17.	270.2	47	8	31.	267.3	47
	4	25.	.507E+3	.8	4	3.	-.704E+2	-.6	9	18.	.454E+2	-.0	10	32.	.802E+2	1.3
			-.205E-1	3.6			.424E-2	5.0			.324E+2	2.6			-.361E-2	5.8
3	8	25.	270.8	24	8	2.	269.7	42	8	18.	269.9	33	8	27.	267.7	36
	4	25.	.478E+3	-1.4	4	2.	.326E+2	.5	9	19.	.542E+2	1.5	10	27.	.640E+2	-1.2
			-.188E-1	3.4			-.829E-3	4.2			.158E+2	3.4			-.224E-2	5.2
4	8	25.	270.6	31	8	2.	269.9	39	8	20.	270.2	37	8	30.	267.4	42
	4	25.	.408E+3	.5	4	2.	.223E+2	-1.0	9	21.	.520E+2	1.0	10	31.	.812E+2	-.6
			-.154E-1	3.4			-.469E-3	4.4			.316E+2	3.2			-.378E-2	5.7
5	8	23.	270.5	22	8	2.	269.8	45	8	21.	270.2	40	8	29.	267.3	33
	4	24.	.637E+3	.4	4	2.	.290E+2	-.2	9	21.	.534E+2	.0	10	30.	.688E+2	.9
			-.271E-1	3.9			-.763E-3	4.8			.259E+2	3.4			-.235E-2	4.9
6	8	25.	270.5	21	8	2.	270.0	28	8	22.	270.1	24	8	29.	267.5	22
	4	26.	.845E+3	1.4	4	2.	.454E+2	-2.1	9	22.	.546E+2	1.9	10	29.	.659E+2	-.3
			-.373E-1	4.4			-.157E-2	4.0			.243E+2	3.2			-.214E-2	5.4

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273				PERIOD 70/274 - 71/090				PERIOD 71/091 - 71/273				PERIOD 71/274 - 72/107			
1	10	18.	270.8	217	10	10.	272.4	227	10	7.	270.4	274	10	20.	271.7	175
	4	18.	.819E-2	0.0	4	10.	.524E-2	0.0	9	7.	.447E-2	0.0	9	22.	.279E-2	0.0
			-.102E-2	4.4			-.616E-3	4.7			-.748E+1	4.3			.439E+2	4.6
2	10	19.	270.7	32	10	10.	272.2	40	10	9.	270.4	48	10	22.	271.6	30
	4	20.	.936E-2	.6	4	11.	.699E-2	1.0	9	9.	.427E-2	-.2	9	24.	.241E-2	.2
			-.158E-2	3.0			-.155E-2	4.0			.629E+1	3.2			.564E+2	4.1
3	10	24.	271.1	31	10	12.	272.4	37	10	8.	270.3	38	10	19.	271.7	27
	4	24.	.780E-2	-1.6	4	12.	.548E-2	-.3	9	8.	.463E-2	.0	9	20.	.286E-2	.4
			-.983E-3	7.0			-.590E-3	4.6			-.133E+1	4.1			.389E+2	3.8
4	10	15.	270.7	40	10	11.	272.6	36	10	7.	270.5	44	10	21.	271.4	26
	4	15.	.748E-2	.5	4	11.	.451E-2	-1.1	9	7.	.549E-2	-.4	9	22.	.287E-2	1.2
			-.849E-3	3.2			-.157E-3	5.2			-.238E+2	3.2			.456E+2	3.2
5	10	20.	270.7	28	10	11.	272.3	38	10	6.	270.4	43	10	18.	271.7	30
	4	20.	.996E-2	1.2	4	12.	.614E-2	.7	9	6.	.353E-2	-.4	9	20.	.245E-2	.0
			-.195E-2	3.7			-.103E-2	5.0			.181E+1	5.5			.504E+2	3.9
6	10	16.	270.6	23	10	8.	272.4	28	10	6.	270.3	33	10	19.	271.9	19
	4	16.	.838E-2	.8	4	9.	.585E-2	-.0	9	6.	.369E-2	.8	9	20.	.268E-2	-1.8
			-.135E-2	3.0			-.116E-2	2.9			.224E+1	3.3			.414E+2	3.1

ORIGINAL PAGE IS
OF POOR QUALITY

.4 MB TEMPERATURE

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	8 45. 270.4 47 4 45. .621E+2 0.0 -.307E-3 4.9	8 3. 259.0 97 4 10. .136E+3 0.0 -.969E-2 12.1	4 50. 272.3 63 8 52. .775E-2 0.0 -.115E+3 6.2	8 0. 260.6 106 4 0. -.236E+2 0.0 .180E-2 7.5
2	8 47. 270.5 5 4 47. .768E+2 -.2 -.979E-3 4.1	8 3. 258.8 15 4 10. .135E+3 1.8 -.942E-2 8.4	4 51. 272.3 11 8 52. .705E-2 .1 -.942E+2 3.5	8 0. 260.7 18 4 1. -.149E+2 -.4 .142E-2 6.4
3	8 51. 270.5 7 4 51. .996E+2 -3.0 -.192E-2 3.2	8 4. 259.0 14 4 13. .171E+3 2.5 -.128E-1 13.9	4 53. 272.0 12 8 55. .823E-2 1.1 -.176E+3 5.4	8 1. 261.0 15 4 1. -.919E+1 -2.8 .104E-2 8.6
4	8 44. 270.4 6 4 44. .771E+2 -.3 -.113E-2 3.2	8 1. 259.9 17 4 7. .121E+3 -3.6 -.888E-2 10.7	4 48. 272.3 11 8 52. .101E-1 -3.3 -.146E+3 3.2	8 1. 260.3 14 4 1. -.228E+2 1.8 .123E-2 6.2
5	8 46. 270.2 4 4 46. .506E+2 .8 .248E-3 2.8	8 3. 259.0 10 4 11. .143E+3 .8 -.101E-1 13.7	4 46. 272.4 15 8 48. .816E-2 -.4 -.179E+3 3.8	8 0. 260.8 18 4 0. -.136E+2 -1.0 .104E-2 6.9
6	8 42. 270.2 6 4 42. -.406E+1 -1.3 .304E-2 1.9	8 1. 259.6 8 4 5. .990E+2 -6.2 -.720E-2 13.1	4 46. 271.8 10 8 46. .478E-2 2.8 -.549E+2 5.9	8 0. 260.8 7 4 0. -.114E+2 -2.5 .977E-3 9.3

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	8 7. 264.4 134 4 10. .113E+4 0.0 -.541E-1 4.7	4 3. 262.7 238 8 6. -.145E-1 0.0 .277E+3 5.5	4 2. 263.4 206 8 2. .126E-1 0.0 -.243E+3 5.0	4 9. 263.6 222 9 12. .219E-2 0.0 -.498E+2 6.0
2	8 7. 264.6 20 4 10. .142E+4 -1.9 -.689E-1 4.0	4 3. 262.5 39 8 5. -.100E-1 .8 .183E+3 5.5	4 3. 263.3 36 8 3. .740E-2 1.0 -.126E+3 5.1	4 14. 263.7 40 9 15. .204E-2 1.1 -.267E+2 6.6
3	8 8. 264.5 17 4 11. .125E+4 -1.0 -.598E-1 5.6	4 3. 262.7 39 8 5. -.109E-1 .0 .202E+3 5.2	4 2. 263.1 26 8 2. .141E-1 .2 -.275E+3 4.1	4 9. 264.0 32 9 14. .224E-2 -1.0 -.599E+2 6.3
4	8 6. 264.3 24 4 6. .901E+3 .2 -.426E-1 4.0	4 3. 262.6 35 8 6. -.143E-1 .7 .271E+3 4.3	4 2. 263.2 28 8 2. .127E-1 1.3 -.243E+3 4.2	4 9. 263.7 38 9 13. .223E-2 .1 -.505E+2 5.6
5	8 5. 264.3 18 4 6. .135E+4 -.2 -.655E-1 3.1	4 4. 262.8 39 8 9. -.157E-1 -1.1 .247E+3 5.7	4 2. 263.6 31 8 2. .679E-2 -1.2 -.118E+3 5.0	4 11. 263.8 31 9 16. .240E-2 .1 -.586E+2 7.4
6	8 7. 264.3 15 4 9. .110E+4 1.1 -.521E-1 4.0	4 2. 262.6 25 8 7. -.162E-1 .7 .310E+3 5.3	4 1. 263.5 20 8 2. .108E-1 -.6 -.261E+3 6.3	4 10. 264.0 21 9 15. .236E-2 -1.1 -.594E+2 6.0

STATIONS 91162 76861 78703 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	8 6. 265.0 149 4 6. .258E+3 0.0 -.993E-2 4.8	9 3. 267.3 173 4 4. -.434E+2 0.0 .280E-3 4.8	9 0. 263.7 208 4 1. -.141E+2 0.0 .121E-2 5.7	9 3. 265.8 137 4 4. -.408E+2 0.0 .991E-4 4.5
2	8 7. 265.1 20 4 7. .162E+3 -1.5 -.511E-2 3.8	9 3. 267.2 31 4 3. -.353E+2 .6 -.936E-4 3.6	9 0. 263.6 34 4 1. -.146E+1 .7 .805E-3 4.6	9 2. 265.7 24 4 2. -.280E+2 .9 .243E-4 5.0
3	8 5. 265.3 20 4 5. .523E+3 -2.2 -.234E-1 7.7	9 4. 267.2 23 4 4. -.480E+2 .1 .316E-3 4.1	9 0. 263.4 31 4 1. .146E+1 2.1 .876E-3 4.0	9 4. 265.8 22 4 4. -.411E+2 -.1 .150E-4 4.8
4	8 5. 264.8 27 4 5. .367E+3 .7 -.155E-1 3.1	9 4. 267.3 29 4 4. -.440E+2 -.4 .329E-4 5.1	9 0. 263.9 32 4 2. -.214E+2 -1.5 .151E-2 9.3	9 3. 266.0 15 4 3. -.416E+2 -1.1 .223E-3 2.3
5	8 4. 265.1 19 4 4. .119E+3 -.5 -.351E-2 3.9	9 2. 267.3 31 4 2. -.389E+2 -.4 .350E-3 3.0	9 0. 263.7 31 4 2. -.151E+2 -.5 .173E-2 5.7	9 8. 266.1 22 4 8. -.631E+2 -1.6 .452E-4 4.4
6	8 6. 265.0 17 4 6. .263E+3 .3 -.101E-1 3.2	9 4. 267.2 22 4 4. -.428E+2 .8 .180E-3 3.7	9 0. 263.7 28 4 1. -.149E+2 .3 .114E-2 3.8	9 2. 265.9 14 4 2. -.310E+2 -.6 -.285E-4 4.1

NOTES FOR PAGES A-9 AND A-10

Pages A-9 and A-10 are in a slightly different format than previous pages. In particular, note that on these two pages, entries D and E (cf. page A-2) are variances unexplained by the model.

10.0 MB TEMPERATURE — 5.0 MB TEMPERATURE — 2.0 MB TEMPERATURE

72/108 - 73/017

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	9	14.	231.2	98	5	10.	240.4	96	10	10.	256.9	96
	4	12.	.931E+2	0.0	9	7.	-.250E-2	0.0	9	8.	[illegible]	0.0
			-.153E-2	8.7			.127E+3	12.8			.808E+2	16.6
2	9	14.	231.0	13	5	9.	240.3	13	10	10.	256.8	13
	4	11.	.928E+2	-.0	9	5.	-.231E-2	-.8	9	8.	.255E-2	-.7
			-.153E-2	3.0			.125E+3	4.9			.865E+2	5.5
3	9	15.	231.1	15	5	11.	240.1	15	10	10.	256.1	15
	4	13.	.899E+2	-.5	9	7.	-.359E-2	.8	9	8.	.326E-2	2.9
			-.137E-2	2.0			.140E+3	2.1			.767E+2	3.2
4	9	12.	231.1	17	5	10.	240.4	17	10	10.	257.2	16
	4	9.	.931E+2	.3	9	6.	-.356E-2	.4	9	8.	.326E-2	-.4
			-.157E-2	4.8			.138E+3	4.8			.727E+2	5.5
5	9	14.	230.8	16	5	10.	239.9	16	10	10.	256.0	15
	4	12.	.931E+2	.3	9	7.	-.312E-2	-.4	9	9.	.356E-2	-.9
			-.149E-2	2.9			.136E+3	3.3			.712E+2	4.7
6	9	15.	230.9	10	5	10.	240.0	10	10	10.	256.3	10
	4	13.	.890E+2	.2	9	7.	-.184E-2	-.8	9	8.	.297E-2	-.3
			-.135E-2	1.8			.121E+3	2.3			.826E+2	5.2

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	9	51.	233.2	287	10	41.	244.0	284	10	43.	263.2	281
	5	46.	.479E+3	0.0	9	39.	.290E-2	0.0	9	42.	.441E-2	0.0
			-.276E-1	4.8			.546E+2	5.9			.153E+2	5.9
2	9	50.	233.2	32	10	41.	244.0	33	10	44.	263.2	33
	5	45.	.461E+3	.3	9	39.	.279E-2	.4	9	44.	.439E-2	.8
			-.265E-1	3.5			.566E+2	3.7			.142E+2	3.2
3	9	53.	233.1	42	10	42.	243.8	42	10	45.	263.1	41
	5	48.	.483E+3	.2	9	41.	.300E-2	-.1	9	45.	.460E-2	-.2
			-.282E-1	3.1			.516E+2	3.2			.105E+2	3.0
4	9	54.	233.4	37	10	42.	244.2	36	10	42.	263.3	36
	5	48.	.502E+3	-.7	9	41.	.306E-2	-.4	9	42.	.437E-2	.7
			-.294E-1	3.1			.478E+2	3.4			.172E+2	3.7
5	9	52.	233.1	35	10	40.	244.1	38	10	43.	263.4	39
	5	47.	.470E+3	.7	9	39.	.327E-2	-.4	9	43.	.441E-2	-1.4
			-.270E-1	2.8			.430E+2	4.7			.943E+1	4.9
6	9	48.	233.2	28	10	42.	244.0	27	10	43.	263.1	27
	5	43.	.493E+3	-1.0	9	39.	.250E-2	-1.0	9	42.	.408E-2	.6
			-.286E-1	3.8			.634E+2	3.0			.236E+2	3.6

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	10	72.	234.6	213	10	69.	245.8	212	10	75.	263.9	210
	5	72.	.256E-2	0.0	9	66.	.160E-2	0.0	9	73.	.239E-2	0.0
			.105E-2	3.8			.488E+2	4.4			.328E+2	4.8
2	10	70.	234.4	33	10	67.	245.7	34	10	72.	264.0	33
	5	69.	.272E-2	.7	9	62.	.130E-2	-.1	9	70.	.205E-2	-.7
			.863E-3	3.9			.590E+2	3.3			.421E+2	4.3
3	10	74.	234.7	25	10	69.	245.9	25	10	76.	264.1	24
	5	73.	.255E-2	-.3	9	65.	.134E-2	-.5	9	75.	.207E-2	-.7
			.961E-3	2.7			.527E+2	3.8			.376E+2	2.4
4	10	70.	234.7	28	10	67.	245.8	28	10	75.	263.9	28
	5	70.	.297E-2	-.7	9	63.	.185E-2	-.1	9	74.	.260E-2	.2
			.749E-3	3.4			.461E+2	4.2			.239E+2	5.5
5	10	75.	234.4	37	10	72.	245.7	38	10	74.	263.9	37
	5	74.	.243E-2	.4	9	69.	.128E-2	-.1	9	73.	.228E-2	-.7
			.956E-3	2.9			.466E+2	3.8			.352E+2	3.8
6	10	74.	234.5	26	10	68.	245.6	26	10	75.	263.7	26
	5	74.	.315E-2	-.2	9	65.	.170E-2	.6	9	74.	.250E-2	1.2
			.225E-3	3.0			.493E+2	3.5			.326E+2	2.6

	1.0 MB TEMPERATURE				.4 MB TEMPERATURE			
	72/108 - 73/017				72/108 - 73/017			

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN								
1	8	8.	265.7	94	8	47.	266.4	92
	4	7.	.169E+3	0.0	4	43.	-.402E+2	0.0
			-.466E-2	14.7			.497E-2	8.9
2	8	8.	265.6	12	8	49.	266.6	12
	4	6.	.174E+3	-.9	4	44.	-.428E+2	-1.4
			-.491E-2	3.7			.509E-2	3.2
3	8	9.	265.3	15	8	48.	266.1	15
	4	7.	.182E+3	-.4	4	45.	-.298E+2	.6
			-.552E-2	3.3			.437E-2	4.2
4	8	7.	266.3	17	8	50.	267.4	13
	4	6.	.144E+3	-2.1	4	41.	-.678E+2	-5.9
			-.327E-2	4.2			.637E-2	7.3
5	8	8.	265.2	14	8	50.	265.9	14
	4	7.	.163E+3	-2.0	4	46.	-.434E+2	-1.4
			-.427E-2	1.3			.524E-2	3.6
6	8	8.	265.2	10	8	48.	266.3	10
	4	7.	.169E+3	-1.2	4	43.	-.401E+2	-2.0
			-.469E-2	3.1			.500E-2	3.2

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN								
1	4	64.	270.1	276	8	93.	262.1	275
	5	64.	.198E-2	0.0	4	83.	-.329E+3	0.0
			.516E-3	4.8			.179E-1	5.2
2	4	65.	269.9	33	8	94.	261.9	25
	5	65.	.195E-2	1.4	4	81.	-.355E+3	1.9
			.351E-3	3.6			.193E-1	3.6
3	4	67.	269.9	41	8	95.	262.1	34
	5	67.	.187E-2	.1	4	85.	-.318E+3	-.4
			.469E-3	3.8			.173E-1	4.1
4	4	62.	270.0	35	8	92.	261.8	29
	5	62.	.206E-2	1.5	4	82.	-.326E+3	2.7
			.500E-3	3.3			.178E-1	3.7
5	4	66.	270.1	38	8	93.	262.0	31
	5	66.	.194E-2	-.3	4	81.	-.359E+3	-.7
			.320E-3	4.2			.195E-1	5.0
6	4	64.	270.0	26	8	94.	262.1	23
	5	64.	.196E-2	.6	4	84.	-.312E+3	-.2
			.492E-3	4.3			.170E-1	4.7

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN								
1	4	97.	269.8	208	9	99.	262.9	207
	5	97.	.423E-3	0.0	4	99.	.136E+2	0.0
			.662E-3	3.4			-.477E-4	3.8
2	4	97.	269.8	32	9	97.	263.0	23
	5	97.	.525E-3	.1	4	97.	.141E+2	-.8
			.439E-3	3.4			.229E-3	5.0
3	4	97.	269.7	22	9	99.	263.0	20
	5	96.	.530E-3	.5	4	98.	.184E+2	-.3
			.708E-3	3.0			-.547E-3	4.0
4	4	97.	269.7	28	9	98.	262.6	22
	5	96.	.466E-3	.6	4	98.	.136E+2	1.8
			.618E-3	4.1			-.341E-5	3.1
5	4	97.	269.7	35	9	97.	263.0	29
	5	96.	.536E-3	.2	4	97.	.197E+2	-.6
			.638E-3	3.3			-.491E-4	3.6
6	4	97.	269.8	26	9	98.	262.8	22
	5	96.	.541E-3	-.3	4	98.	.162E+2	.6
			.712E-3	2.8			-.141E-3	3.5

10.0 MB TEMPERATURE

STATIONS 04202 70266 72913 74174 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273	PERIOD 70/274 - 71/090	PERIOD 71/091 - 71/273	PERIOD 71/274 - 72/107
1	9 56. 241.7 83 5 58. .202E+3 0.0 -.109E-1 6.1	9 73. 219.1 115 11 76. .515E+2 0.0 .484E+0 10.4	9 78. 238.1 108 4 79. .117E+3 0.0 -.136E-2 7.2	9 79. 220.4 118 11 83. .533E+2 0.0 .370E+0 8.6
2	9 54. 241.0 17 5 55. .185E+3 .9 -.960E-2 3.6	9 73. 219.2 15 11 76. .497E+2 -.1 .519E+0 2.0	9 77. 238.1 15 4 78. .121E+3 .3 -.150E-2 2.2	9 77. 219.9 26 11 81. .485E+2 .7 .381E+0 3.5
3	9 58. 241.5 14 5 64. .286E+3 -.2 -.174E-1 6.0	9 75. 219.1 17 11 77. .668E+2 -.7 .299E+0 5.8	9 76. 237.5 18 4 77. .112E+3 .9 -.123E-2 3.0	9 85. 220.6 15 11 90. .481E+2 -1.9 .450E+0 7.5
4	9 56. 241.0 15 5 59. .197E+3 .4 -.102E-1 3.9	9 70. 219.3 17 11 73. .514E+2 .3 .468E+0 2.5	9 76. 237.7 14 4 78. .118E+3 1.3 -.157E-2 3.2	9 79. 220.7 17 11 82. .589E+2 -.3 .314E+0 2.7
5	9 55. 240.9 10 5 57. .180E+3 .1 -.911E-2 4.0	9 72. 219.0 15 11 75. .533E+2 1.0 .465E+0 2.4	9 78. 238.2 20 4 80. .114E+3 -.2 -.130E-2 3.4	9 77. 220.7 19 11 80. .537E+2 -.4 .334E+0 2.9
6	9 54. 240.8 9 5 56. .204E+3 1.2 -.111E-1 3.1	9 72. 219.5 12 11 75. .544E+2 -1.4 .435E+0 3.5	9 79. 238.1 11 4 80. .117E+3 -.6 -.136E-2 4.3	9 78. 220.4 11 11 81. .539E+2 -.5 .346E+0 3.2

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273	PERIOD 70/274 - 71/090	PERIOD 71/091 - 71/273	PERIOD 71/274 - 72/10
1	11 45. 237.0 205 9 45. .913E+0 0.0 .132E+2 3.5	11 57. 230.8 266 9 59. .791E+0 0.0 .230E+2 5.2	11 22. 236.1 257 9 30. .535E+0 0.0 .511E+2 3.0	11 46. 229.9 256 9 47. .734E+0 0.0 .108E+2 3.9
2	11 47. 237.0 35 9 47. .966E+0 .4 .118E+2 2.8	11 56. 230.9 47 9 57. .784E+0 -.7 .262E+2 2.9	11 23. 236.2 46 9 32. .523E+0 -.4 .554E+2 2.4	11 47. 230.0 47 9 48. .722E+0 -.7 .143E+2 2.8
3	11 44. 237.1 24 9 44. .939E+0 -.3 .108E+2 1.9	11 53. 230.7 40 9 55. .751E+0 .3 .274E+2 3.0	11 27. 235.9 37 9 33. .602E+0 1.6 .399E+2 3.2	11 46. 229.9 34 9 47. .750E+0 -.2 .933E+1 2.2
4	11 46. 237.2 32 9 47. .887E+0 -.5 .219E+2 2.8	11 60. 231.0 42 9 61. .870E+0 -.9 .183E+2 3.3	11 21. 236.2 39 9 29. .546E+0 .0 .548E+2 2.1	11 59. 229.7 46 9 59. .833E+0 1.0 .145E+1 4.4
5	11 44. 237.0 26 9 44. .890E+0 .0 .853E+1 3.2	11 55. 230.6 43 9 56. .748E+0 1.1 .213E+2 3.6	11 23. 236.1 40 9 31. .537E+0 .2 .515E+2 2.4	11 44. 229.9 32 9 44. .724E+0 .0 .928E+1 2.4
6	11 47. 237.1 21 9 48. .928E+0 .4 .217E+2 2.6	11 57. 230.8 31 9 59. .810E+0 -1.0 .261E+2 2.7	11 20. 236.2 24 9 29. .498E+0 -.5 .526E+2 2.3	11 49. 229.8 26 9 49. .781E+0 -.3 .916E+1 2.7

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273	PERIOD 70/274 - 71/090	PERIOD 71/091 - 71/273	PERIOD 71/275 - 72/107
1	9 13. 237.3 240 10 14. .902E+2 0.0 -.240E-2 3.0	9 29. 236.3 240 4 32. .967E+2 0.0 -.919E-3 3.7	9 30. 234.2 283 4 31. .114E+3 0.0 -.765E-3 3.2	9 7. 234.0 181 10 12. .957E+2 0.0 -.319E-2 3.6
2	9 14. 237.4 38 10 15. .982E+2 -.4 -.271E-2 2.4	9 30. 236.4 42 4 34. .968E+2 -.7 -.991E-3 3.3	9 31. 234.2 51 4 33. .123E+3 -.3 -.102E-2 2.6	9 8. 234.0 32 10 21. .116E+3 .3 -.440E-2 5.2
3	9 11. 237.4 37 10 12. .736E+2 -.5 -.147E-2 2.3	9 27. 236.5 36 4 31. .922E+2 -.9 -.104E-2 3.5	9 31. 234.1 44 4 32. .113E+3 .7 -.772E-3 3.2	9 12. 234.0 29 10 21. .117E+3 .7 -.387E-2 5.1
4	9 13. 237.2 40 10 15. .115E+3 .6 -.422E-2 3.3	9 29. 236.4 37 4 33. .102E+3 .4 -.104E-2 3.1	9 31. 234.3 45 4 32. .116E+3 -.0 -.676E-3 2.5	9 6. 234.0 27 10 12. .101E+3 -.0 -.342E-2 2.7
5	9 13. 237.4 34 10 14. .104E+3 -.0 -.342E-2 2.9	9 26. 236.4 39 4 28. .894E+2 -.1 -.659E-3 3.0	9 30. 234.1 40 4 32. .119E+3 .1 -.894E-3 3.0	9 6. 234.0 30 10 10. .910E+2 -.1 -.276E-2 2.3
6	9 14. 237.3 26 10 15. .840E+2 .4 -.197E-2 3.2	9 31. 236.5 29 4 35. .200E+3 -1.3 -.974E-3 3.3	9 30. 234.1 34 4 31. .117E+3 .6 -.878E-3 3.3	9 7. 234.0 19 10 11. .947E+2 -.1 -.280E-2 2.3

5.0 MB TEMPERATURE

STATIONS 04202 70266 72913 74174 (HIGH LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	10 61. 254.8 81 8 61. .497E-2 0.0 .898E+1 7.0	9 83. 224.0 115 8 85. .876E+2 0.0 .194E+2 11.9	5 79. 251.4 107 8 79. .633E-2 0.0 .188E+2 7.9	7 79. 225.7 116 8 83. .147E+2 0.0 .226E+2 9.6
2	10 57. 254.8 12 8 57. .471E-2 .3 .782E+1 4.6	9 83. 224.2 16 8 85. .876E+2 -.1 .207E+2 3.3	5 79. 251.4 14 8 79. .672E-2 .2 .151E+2 3.0	7 79. 225.6 21 8 83. .152E+2 1.6 .222E+2 4.0
3	10 61. 255.0 13 8 62. .404E-2 .4 .249E+2 4.6	9 83. 223.7 16 8 86. .834E+2 -.2 .240E+2 6.7	5 79. 250.8 17 8 80. .583E-2 .8 .227E+2 4.9	7 77. 225.8 15 8 82. .147E+2 .5 .226E+2 3.6
4	10 61. 254.5 15 8 61. .493E-2 .7 .743E+1 3.9	9 81. 224.6 18 8 83. .843E+2 -.2 .214E+2 4.2	5 77. 251.0 14 8 78. .586E-2 .9 .221E+2 3.8	7 79. 226.1 17 8 83. .144E+2 -.7 .234E+2 4.8
5	10 62. 254.5 10 8 62. .556E-2 -.5 .623E+0 5.4	9 83. 223.7 14 8 85. .890E+2 2.4 .187E+2 3.8	5 79. 251.4 20 8 79. .606E-2 .1 .197E+2 3.9	7 78. 225.6 18 8 83. .145E+2 1.4 .231E+2 3.8
6	10 60. 254.4 9 8 60. .519E-2 .3 .623E+1 4.0	9 82. 224.1 12 8 84. .835E+2 .9 .216E+2 4.9	5 80. 251.4 11 8 80. .669E-2 -.8 .158E+2 4.7	7 78. 225.8 11 8 83. .141E+2 -1.9 .231E+2 5.1

STATIONS 72402 72391 72267 74794 (MID LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	11 25. 247.3 205 8 29. .660E+0 0.0 .469E+2 4.4	5 55. 245.7 272 8 58. .125E-1 0.0 .387E+2 8.0	5 39. 247.2 268 8 39. .111E-1 0.0 .691E+1 4.0	5 47. 240.0 257 8 48. .114E-1 0.0 .101E+2 6.3
2	11 26. 247.3 37 8 31. .694E+0 .2 .488E+2 4.2	5 51. 246.0 48 8 53. .122E-1 -.6 .378E+2 3.8	5 44. 247.2 48 8 44. .119E-1 -.4 .120E+1 4.0	5 48. 240.6 47 8 49. .115E-1 -1.8 .101E+2 4.9
3	11 24. 247.4 24 8 29. .695E+0 -.5 .476E+2 7.6	5 53. 245.5 40 8 55. .122E-1 1.4 .434E+2 3.9	5 38. 246.9 37 8 38. .107E-1 1.3 .755E+1 2.7	5 47. 240.0 35 8 47. .117E-1 .9 .102E+2 3.3
4	11 26. 247.5 33 8 32. .638E+0 .0 .555E+2 3.9	5 53. 245.7 40 8 55. .119E-1 -.6 .384E+2 4.4	5 35. 247.2 40 8 36. .101E-1 .0 .129E+2 2.8	5 49. 239.9 45 8 50. .114E-1 -1.0 .110E+2 4.8
5	11 21. 247.3 25 8 27. .559E+0 .1 .540E+2 3.8	5 55. 245.4 45 8 56. .116E-1 2.0 .425E+2 5.2	5 39. 247.1 42 8 39. .115E-1 .5 .760E+1 2.6	5 44. 240.2 32 8 45. .103E-1 -1.0 .124E+2 4.4
6	11 26. 247.4 21 8 31. .678E+0 .5 .472E+2 4.1	5 55. 245.8 29 8 57. .126E-1 -1.0 .396E+2 3.8	5 39. 247.3 25 8 39. .111E-1 -.6 .710E+1 2.6	5 48. 240.1 25 8 49. .117E-1 -1.2 .953E+1 3.9

STATIONS 91162 78861 78703 91366 61902 (LOW LATITUDES)

RUN	PERIOD 70/101 - 70/273	70/274 - 71/090	71/091 - 71/273	71/274 - 72/107
1	5 26. 247.7 235 8 26. .908E-2 0.0 .406E+1 3.7	5 42. 247.7 242 8 42. .112E-1 0.0 -.901E+1 4.4	5 34. 246.1 284 8 34. .115E-1 0.0 .146E+2 4.3	5 41. 245.1 181 8 45. .109E-1 0.0 .332E+2 5.6
2	5 26. 247.6 38 8 26. .911E-2 .2 .181E+1 3.1	5 45. 247.9 41 8 45. .114E-1 -1.2 -.922E+1 3.6	5 37. 246.1 51 8 38. .121E-1 -.6 .155E+2 3.8	5 48. 244.8 31 8 53. .111E-1 1.1 .335E+2 5.9
3	5 27. 247.8 35 8 27. .966E-2 -.8 -.337E+1 3.6	5 42. 247.6 37 8 42. .110E-1 .4 -.951E+1 3.4	5 33. 245.9 41 8 33. .118E-1 1.0 .115E+2 3.1	5 43. 245.1 29 8 46. .110E-1 .4 .273E+2 5.5
4	5 26. 247.6 40 8 26. .901E-2 .2 .784E+1 3.2	5 40. 247.9 38 8 40. .113E-1 -.5 -.371E+1 2.7	5 37. 246.2 43 8 37. .110E-1 -.3 .181E+2 3.9	5 39. 244.8 27 8 42. .107E-1 .7 .317E+2 3.2
5	5 26. 247.7 34 8 26. .965E-2 .7 -.213E+1 3.2	5 43. 247.6 40 8 44. .110E-1 .8 -.342E+1 4.2	5 34. 245.9 42 8 34. .123E-1 -.0 .737E+1 3.9	5 40. 245.1 31 8 44. .114E-1 -.0 .304E+2 4.4
6	5 23. 247.6 26 8 23. .889E-2 .4 -.397E-2 2.7	5 46. 247.7 29 8 46. .115E-1 -.3 -.369E+1 4.0	5 33. 246.1 31 8 33. .109E-1 -.7 .105E+2 3.7	5 42. 245.2 19 8 44. .110E-1 -1.0 .283E+2 2.6

ORIGINAL PAGE IS OF POOR QUALITY

NOTES FOR PAGE AA-4

Page AA-4 is in a slightly different format than previous pages. In particular, note that on this page entries D and E (cf. page A-2) are variances unexplained by the models.

10.0 MB TEMPERATURE	5.0 MB TEMPERATURE	2.0 MB TEMPERATURE
72/108 - 73/017	72/108 - 73/017	72/108 - 73/017

STATIONS 04202 70266 72913 74124 (HIGH LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	11	9.	231.3	97	5	10.	240.4	100	8	9.	257.3	93
	5	9.	.832E+0	0.0	9	7.	-.250E-2	0.0	11	7.	.707E+2	0.0
			.883E-3	8.8			.127E+3	12.8			.658E+0	16.8
2	11	8.	231.1	12	5	9.	240.3	13	8	8.	257.0	12
	5	8.	.831E+0	.0	9	5.	-.231E-2	-.8	11	6.	.706E+2	-.7
			.922E-3	3.1			.125E+3	4.9			.667E+0	4.6
3	11	9.	231.2	13	5	11.	240.1	15	8	9.	256.4	13
	5	9.	.841E+0	-1.1	9	7.	-.359E-2	.8	11	6.	.716E+2	1.9
			.824E-3	1.5			.140E+3	2.1			.649E+0	3.7
4	11	6.	231.3	17	5	10.	240.4	17	8	7.	257.6	16
	5	6.	.831E+0	1.0	9	6.	-.356E-2	.4	11	6.	.746E+2	.5
			.777E-3	4.4			.138E+3	4.8			.546E+0	5.9
5	11	10.	231.0	10	5	10.	239.9	16	8	9.	256.7	10
	5	9.	.847E+0	-.0	9	7.	-.312E-2	-.4	11	7.	.707E+2	-.4
			.759E-3	1.8			.136E+3	3.3			.677E+0	3.3
6	11	9.	231.0	16	5	10.	240.0	10	8	9.	256.4	15
	5	9.	.801E+0	-.0	9	7.	-.184E-2	-.8	11	7.	.764E+2	-1.1
			.109E-2	2.2			.121E+3	2.3			.539E+0	3.8

STATIONS 72·02 72391 72269 74794 (MID LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	11	22.	233.2	279	10	41.	244.0	282	8	44.	263.2	280
	5	21.	.938E+0	0.0	11	27.	.273E-2	0.0	11	39.	.446E+2	0.0
			.105E-2	4.8			.760E+0	5.9			.475E+0	5.9
2	11	22.	233.2	32	10	41.	244.0	33	8	45.	263.2	33
	5	21.	.916E+0	.6	11	26.	.267E-2	.5	11	39.	.440E+2	.8
			.117E-2	2.2			.773E+0	3.3			.473E+0	3.1
3	11	22.	233.1	42	10	42.	243.9	42	8	46.	263.1	41
	5	21.	.937E+0	-.1	11	27.	.260E-2	-.2	11	41.	.444E+2	-.2
			.879E-3	2.4			.778E+0	2.9			.463E+0	2.8
4	11	24.	233.4	36	10	42.	244.2	35	8	44.	263.3	35
	5	23.	.956E+0	.3	11	27.	.261E-2	.3	11	37.	.442E+2	1.0
			.863E-3	1.9			.789E+0	3.0			.518E+0	3.7
5	11	21.	233.2	28	10	42.	244.0	27	8	45.	263.1	27
	5	20.	.930E+0	-.1	11	27.	.264E-2	-.3	11	39.	.443E+2	1.1
			.114E-2	2.8			.774E+0	2.5			.475E+0	3.0
6	11	22.	233.1	35	10	40.	244.1	38	8	45.	263.5	39
	5	21.	.929E+0	.1	11	24.	.265E-2	-.6	11	39.	.440E+2	-1.6
			.115E-2	2.3			.755E+0	4.4			.421E+0	4.5

STATIONS 91162 78861 78783 91366 61902 (LOW LATITUDES)

RUN	10.0 MB				5.0 MB				2.0 MB			
1	10	72.	234.6	214	5	66.	245.8	212	10	75.	263.9	211
	5	72.	.256E-2	0.0	9	64.	.264E-1	0.0	5	73.	.237E-2	0.0
			.105E-2	3.8			-.339E+3	4.4			.215E-2	4.8
2	10	70.	234.4	33	5	62.	245.7	34	10	72.	264.0	33
	5	69.	.272E-2	.7	9	60.	.280E-1	-.0	5	70.	.207E-2	-.7
			.863E-3	3.9			-.357E+3	3.4			.271E-2	4.3
3	10	74.	234.7	25	5	65.	245.9	25	10	76.	264.1	24
	5	73.	.255E-2	-.3	9	63.	.275E-1	-.3	5	75.	.207E-2	-.7
			.961E-3	2.7			-.356E+3	3.9			.243E-2	2.4
4	10	70.	234.7	28	5	64.	245.8	28	10	75.	263.9	28
	5	70.	.297E-2	-.7	9	62.	.265E-1	-.0	5	74.	.254E-2	.2
			.749E-3	3.4			-.340E+3	4.1			.162E-2	5.5
5	10	75.	234.4	37	5	69.	245.7	38	10	74.	263.9	37
	5	74.	.243E-2	.4	9	68.	.163E-1	-.1	5	73.	.229E-2	-.6
			.956E-3	2.9			-.188E+3	3.7			.227E-2	3.8
6	10	74.	234.5	26	5	65.	245.6	26	10	75.	263.7	26
	5	74.	.315E-2	-.2	9	65.	.212E-1	.5	5	74.	.248E-2	1.1
			.225E-3	3.0			-.256E+3	3.2			.214E-2	2.6

ORIGINAL PAGE IS OF POOR QUALITY

EXPLANATORY NOTES FOR APPENDICES B AND BB

Accuracy of Temperature Retrievals from SCR-B Radiances at MRN Locations

1. Regression models for temperature, developed using all available rocket data, are shown in run 1. These models were then tested as follows:

   a. For each station group and period, a randomly chosen 15 percent of the available MRN observations were set aside to serve as an independent test set, and the remaining 85 percent were used to develop a regression model.

   b. This regression model was applied to the radiances occurring at the other 15 percent of the MRN locations and times, with a resulting mean error and standard deviation of the error as shown in the listing.

   c. Steps a and b were repeated for four more, different, sets of random data. These five verification tests are shown under runs 2 - 6.

2. Explanation of printout tables:

A	B	D	F	I
	C	E	G	J
			H	K

A = Run number
B = Primary predictor (see 3 below) used in the model
C = Secondary predictor used in the model
D = Variance explained by a model which uses only the primary predictor
E = Variance explained by the full, 2 - predictor model
F = Mean of the rocket data used in the model, $\overline{P}$ (see eq. (1) in text)
G = Coefficient of the primary predictor, A_1
H = Coefficient of the secondary predictor, A_2

I = Number of observations (run 1), number of independent cases tested (runs 2 - 6)
J = Mean error of the independent cases (^{o}K). Applies only to runs 2 - 6
K = Standard deviation (^{o}K) of all the rocket data (for run 1); standard deviation (^{o}K) of the error for the independent test cases (for runs 2 - 6)

3. Explanation of predictors. (Note: R_1 = ch B12 radiance, R_2 = ch B23, R_3 = ch B34, R_4 = ch B4.)

2 = NMC 10 mb temp	6 = $R_1^{1/4}$	10 = $R_1 \cdot R_2$
3 = $R_3 \cdot R_4$	7 = $R_2^{1/4}$	11 = $R_1 \cdot R_3$
4 = R_1/R_3	8 = $R_3^{1/4}$	12 = $R_1 \cdot R_4$
5 = R_1/R_4	9 = $R_4^{1/4}$	13 = $R_2 \cdot R_3$

10.0 MB TEMPERATURE

STATIONS 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	9 76. 219.7 83 3 77. .691E+2 0.0 .327E-2 6.3	3 88. 234.7 123 8 89. .660E-2 0.0 .349E+2 6.9	3 86. 223.3 105 4 89. .915E-2 0.0 -.212E+2 10.6	3 90. 229.6 101 4 92. .786E-2 0.0 -.220E+2 9.7
2	9 76. 219.9 17 3 76. .724E+2 -.6 .260E-2 2.9	3 88. 235.9 10 8 89. .338E-2 1.0 .439E+2 2.4	3 86. 222.8 16 4 89. .842E-2 1.0 -.237E+2 3.9	3 90. 229.8 33 4 93. .779E-2 .3 -.246E+2 3.0
3	9 76. 219.6 16 3 77. .724E+2 -.3 .233E-2 4.3	3 87. 234.4 19 8 88. .294E-2 1.1 .465E+2 1.7	3 88. 223.2 18 4 89. .917E-2 -.1 -.200E+2 3.2	3 90. 229.3 27 4 93. .787E-2 -.5 -.257E+2 2.5
4	9 76. 219.5 11 3 78. .638E+2 1.1 .398E-2 4.6	3 88. 234.7 15 8 89. .455E-2 .1 .335E+2 2.1	3 88. 223.0 13 4 89. .914E-2 -.5 -.226E+2 2.7	3 90. 230.0 25 4 93. .780E-2 -1.0 -.221E+2 2.2
5	9 84. 219.3 6 3 85. .801E+2 .5 .258E-2 9.9	3 91. 234.6 11 8 91. .743E-2 -.9 .126E+2 3.9	3 86. 223.7 12 4 88. .908E-2 -1.0 -.213E+2 3.0	3 90. 229.5 16 4 92. .793E-2 .0 -.209E+2 2.5
6	9 76. 219.4 10 3 76. .748E+2 1.5 .194E-2 4.4	3 88. 234.5 20 8 89. .337E-2 .1 .413E+2 2.2	3 88. 223.1 18 4 89. .903E-2 .8 -.173E+2 2.9	3 89. 229.2 37 4 91. .798E-2 -.7 -.169E+2 2.5

STATIONS 72402 72391 72269 76794 (MID LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	3 58. 236.0 160 4 73. .882E-2 0.0 -.652E+2 7.9	8 38. 234.4 248 3 38. .893E+2 0.0 -.233E-2 3.2	3 38. 229.4 300 4 41. .777E-2 0.0 -.182E+2 4.0	3 66. 230.8 309 4 72. .918E-2 0.0 -.345E+2 4.8
2	3 58. 229.9 24 4 72. .860E-2 .3 -.665E+2 3.3	8 34. 234.6 45 3 34. .908E+2 -.1 -.307E-2 1.9	3 41. 229.4 54 4 45. .789E-2 -.2 -.157E+2 3.6	3 69. 230.7 46 4 74. .950E-2 .8 -.333E+2 3.2
3	3 58. 230.4 22 4 72. .882E-2 .1 -.656E+2 4.0	8 37. 234.4 37 3 37. .589E+2 -.2 .173E-2 2.3	3 33. 229.4 43 4 34. .765E-2 -.4 -.134E+2 3.3	3 67. 230.7 49 4 72. .924E-2 .4 -.335E+2 2.5
4	3 57. 229.8 24 4 73. .885E-2 .5 -.670E+2 3.7	8 35. 234.6 36 3 36. .102E+3 -.9 -.458E-2 1.9	3 44. 229.2 52 4 47. .843E-2 1.3 -.147E+2 3.6	3 66. 230.8 44 4 71. .935E-2 -.6 -.321E+2 2.1
5	3 58. 230.3 18 4 74. .800E-2 -.8 -.690E+2 4.9	8 41. 234.5 28 3 41. .871E+2 -.5 -.181E-2 3.2	3 38. 229.4 37 4 43. .770E-2 .5 -.216E+2 3.7	3 67. 230.7 35 4 73. .907E-2 .2 -.374E+2 2.7
6	3 55. 230.0 24 4 71. .834E-2 .0 -.670E+2 3.2	8 40. 234.3 47 3 40. .727E+2 .4 -.493E-3 3.1	3 39. 229.4 46 4 43. .784E-2 -.4 -.190E+2 3.1	3 63. 230.8 46 4 71. .885E-2 -.4 -.350E+2 2.1

STATIONS 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	3 54. 232.7 118 8 55. .167E-1 0.0 -.371E+2 4.3	8 36. 233.4 168 3 38. .586E+2 0.0 .783E-2 3.1	3 32. 233.0 219 4 33. .111E-1 0.0 -.147E+2 3.5	3 19. 233.3 217 4 20. .774E-2 0.0 -.254E+2 3.5
2	3 51. 232.4 21 8 52. .180E-1 -.0 -.511E+2 3.0	8 36. 233.3 38 3 39. .471E+2 .5 .935E-2 2.7	3 31. 232.9 36 4 33. .109E-1 .1 -.192E+2 3.2	3 19. 233.3 39 4 20. .736E-2 -.3 -.225E+2 3.6
3	3 55. 232.6 17 8 55. .194E-1 .5 -.287E+2 3.1	8 38. 233.3 29 3 41. .494E+2 .4 .965E-2 3.0	3 34. 233.1 37 4 34. .120E-1 -.8 -.129E+2 2.7	3 17. 233.3 35 4 19. .719E-2 -.3 -.297E+2 2.5
4	3 55. 232.4 17 8 57. .196E-1 -.1 -.561E+2 3.6	8 36. 233.5 25 3 38. .559E+2 -.2 .813E-2 2.1	3 33. 232.9 34 4 35. .106E-1 .8 -.149E+2 3.4	3 17. 233.3 30 4 19. .777E-2 -.4 -.236E+2 2.5
5	3 55. 232.8 9 8 56. .173E-1 -.7 -.385E+2 2.8	8 32. 233.4 19 3 35. .518E+2 -.0 .886E-2 1.9	3 34. 233.0 20 4 35. .111E-1 -.1 -.187E+2 3.2	3 18. 233.2 22 4 20. .687E-2 -.2 -.373E+2 2.6
6	3 51. 232.8 13 8 51. .165E-1 .8 -.380E+2 2.1	8 34. 233.4 29 3 36. .596E+2 -.4 .742E-2 2.5	3 30. 233.1 39 4 31. .103E-1 -.6 -.178E+2 3.1	3 21. 233.2 32 4 22. .629E-2 .3 -.233E+2 3.4

5.0 MB TEMPERATURE

STATIONS 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	0	76.	227.4	86	0	92.	246.4	122	0	90.	227.5	122	0	96.	237.5	183
	12	77.	.783E+2	0.0	5	94.	.804E+2	0.0	12	93.	.144E+3	0.0	5	97.	.889E+2	0.0
			.173E-2	9.7			.158E+2	8.8			-.102E-1	11.7			.574E+1	14.8
2	0	74.	227.6	17	0	91.	247.0	18	0	90.	227.1	17	0	96.	236.0	33
	12	75.	.718E+2	-.4	5	92.	.820E+2	.0	12	93.	.138E+3	.6	5	97.	.875E+2	.6
			.253E-2	3.6			.156E+2	2.1			-.945E-2	3.0			.918E+1	2.9
3	0	74.	227.7	16	0	91.	246.2	19	0	90.	227.4	19	0	96.	237.3	28
	12	75.	.657E+2	.0	5	92.	.744E+2	1.1	12	93.	.141E+3	-.3	5	96.	.902E+2	-.3
			.301E-2	4.0			.154E+2	1.5			-.946E-2	2.7			.330E+1	2.6
4	0	78.	227.7	12	0	93.	246.2	15	0	90.	227.5	15	0	96.	238.0	26
	12	78.	.822E+2	-.8	5	95.	.784E+2	1.4	12	93.	.144E+3	-.3	5	96.	.910E+2	-.9
			.113E-2	5.1			.163E+2	3.3			-.101E-1	3.2			.987E+0	2.8
5	0	81.	224.9	6	0	93.	246.2	10	0	90.	227.7	12	0	96.	237.4	16
	12	81.	.956E+2	-.9	5	94.	.814E+2	-.6	12	93.	.147E+3	-.7	5	96.	.921E+2	-.0
			-.600E-3	9.5			.152E+2	2.9			-.108E-1	2.7			.133E+1	4.4
6	0	77.	226.9	10	0	92.	246.2	20	0	91.	227.5	20	0	96.	236.9	37
	12	78.	.747E+2	1.5	5	93.	.782E+2	.1	12	94.	.140E+3	-.7	5	96.	.889E+2	-.1
			.194E-2	6.2			.175E+2	2.0			-.937E-2	2.9			.592E+1	2.8

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	0	66.	242.9	168	0	50.	244.7	265	0	51.	237.9	312	0	51.	242.2	317
	12	69.	.178E+3	0.0	7	51.	.806E+2	0.0	12	54.	.153E+3	0.0	12	52.	.121E+3	0.0
			-.101E-1	8.4			.297E+2	4.1			-.930E-2	6.2			-.491E-2	5.4
2	0	66.	242.7	25	0	51.	244.8	51	0	53.	237.5	57	0	52.	242.4	46
	12	69.	.180E+3	-.2	7	52.	.805E+2	.7	12	56.	.141E+3	.6	12	53.	.124E+3	-.3
			-.990E-2	4.0			.319E+2	2.6			-.800E-2	5.3			-.493E-2	4.4
3	0	67.	243.2	23	0	47.	244.7	40	0	49.	237.6	45	0	51.	242.3	50
	12	70.	.174E+3	-.3	7	48.	.851E+2	-.7	12	52.	.151E+3	-.6	12	52.	.124E+3	.1
			-.969E-2	5.2			.234E+2	1.8			-.800E-2	4.3			-.526E-2	3.8
4	0	65.	243.0	25	0	49.	244.8	40	0	58.	237.7	55	0	51.	242.1	45
	12	68.	.179E+3	.1	7	51.	.745E+2	-.5	12	61.	.143E+3	.5	12	52.	.120E+3	-.0
			-.101E-1	4.1			.371E+2	2.5			-.114E-1	5.9			-.477E-2	3.9
5	0	65.	243.3	19	0	49.	244.7	28	0	53.	237.8	38	0	53.	242.1	36
	12	69.	.186E+3	-.8	7	50.	.852E+2	.6	12	56.	.142E+3	.7	12	53.	.113E+3	1.6
			-.120E-1	4.0			.256E+2	2.3			-.914E-2	6.0			-.352E-2	3.6
6	0	65.	243.1	26	0	48.	244.7	49	0	51.	237.8	46	0	50.	242.3	48
	12	69.	.185E+3	-.9	7	49.	.784E+2	-.4	12	54.	.141E+3	.1	12	51.	.121E+3	-.5
			-.113E-1	3.6			.291E+2	2.4			-.780E-2	4.9			-.495E-2	3.6

STATIONS 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	0	47.	244.1	120	0	19.	245.3	176	0	29.	244.2	225	0	15.	244.4	230
	12	48.	.130E+3	0.0	5	26.	.851E+2	0.0	12	30.	.170E+3	0.0	12	19.	.121E+3	0.0
			-.468E-2	5.0			.224E+2	4.2			-.780E-2	5.8			-.900E-2	4.0
2	0	53.	243.9	21	0	16.	245.3	32	0	30.	243.9	36	0	16.	244.2	38
	12	54.	.131E+3	-.4	5	23.	.769E+2	.0	12	32.	.146E+3	1.5	12	18.	.115E+3	.7
			-.448E-2	5.0			.219E+2	3.9			-.111E-1	5.0			-.767E-2	3.0
3	0	51.	244.1	17	0	22.	245.4	30	0	30.	244.4	39	0	12.	244.3	39
	12	51.	.108E+3	.6	5	28.	.918E+2	-.0	12	32.	.142E+3	-1.1	12	15.	.110E+3	.1
			-.766E-3	3.8			.209E+2	4.1			-.937E-2	4.9			-.938E-2	3.8
4	0	42.	243.7	17	0	20.	245.2	27	0	31.	244.1	33	0	15.	244.3	30
	12	42.	.114E+3	.9	5	26.	.837E+2	.3	12	32.	.149E+3	1.2	12	19.	.125E+3	.3
			-.346E-2	2.9			.208E+2	4.0			-.810E-2	6.1			-.961E-2	2.9
5	0	44.	244.2	9	0	18.	245.4	20	0	31.	244.4	22	0	15.	244.3	23
	12	45.	.131E+3	.4	5	22.	.870E+2	-1.1	12	32.	.149E+3	-1.2	12	18.	.107E+3	.3
			-.500E-2	2.0			.174E+2	3.8			-.775E-2	6.4			-.741E-2	4.5
6	0	45.	244.1	13	0	18.	245.4	31	0	28.	244.3	41	0	15.	244.5	36
	12	46.	.141E+3	2.2	5	26.	.843E+2	-.9	12	29.	.144E+3	-.3	12	19.	.119E+3	-.9
			-.643E-2	3.5			.228E+2	3.8			-.645E-2	5.0			-.955E-2	4.4

ORIGINAL PAGE IS
OF POOR QUALITY

2.0 MB TEMPERATURE

STATIONS 04202 70192 72913 74184 (HIGH LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	10	81.	244.2	83	8	91.	266.1	121	10	86.	240.1	125	6	96.	252.5	184
	5	81.	.968E-2	0.0	5	94.	.949E+2	0.0	5	87.	.104E-1	0.0	10	96.	.115E+3	0.0
			.505E+1	14.7			.275E+2	11.2			.344E+1	12.3			.986E-3	19.8
2	10	79.	244.6	10	8	89.	266.9	10	10	88.	240.0	17	6	96.	253.3	33
	5	80.	.952E-2	-1.2	5	92.	.953E+2	-.5	5	87.	.146E-1	-.6	10	96.	.120E+3	.6
			.526E+1	4.2			.256E+2	3.1			.529E-1	3.7			.712E-3	3.6
3	10	79.	245.3	14	8	89.	265.8	19	10	87.	240.2	20	6	96.	252.2	28
	5	79.	.978E-2	-1.0	5	92.	.962E+2	1.1	5	88.	.104E-1	2.2	10	96.	.110E+3	-1.2
			.300E+1	4.9			.269E+2	2.0			.350E+1	3.9			.129E-2	4.3
4	10	88.	244.6	12	8	91.	266.0	15	10	87.	240.2	16	6	96.	253.0	27
	5	81.	.929E-2	-.5	5	95.	.909E+2	.2	5	88.	.107E-1	-1.6	10	96.	.119E+3	.1
			.686E+1	5.6			.295E+2	4.2			.465E+1	5.4			.562E+3	4.1
5	10	87.	243.8	6	8	91.	255.7	10	10	88.	240.4	13	6	96.	252.2	17
	5	87.	.957E-2	.8	5	94.	.961E+2	.4	5	88.	.104E-1	.1	10	96.	.110E+3	1.1
			.523E+1	15.0			.267E+2	4.2			.408E+1	3.6			.143E-2	3.0
6	10	81.	243.6	10	8	90.	265.7	19	10	88.	240.4	20	6	96.	252.3	37
	5	81.	.100E-1	1.6	5	94.	.932E+2	.5	5	87.	.103E-1	-.5	10	96.	.109E+3	-1.4
			.397E+1	7.2			.291E+2	2.4			.377E+1	3.9			.152E-2	3.3

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	10	44.	261.4	176	10	39.	263.1	270	10	58.	258.0	312	10	64.	260.4	326
	5	54.	.547E-2	0.0	12	41.	.142E-2	0.0	5	63.	.642E-2	0.0	12	65.	.850E-2	0.0
			.254E+2	7.9			.106E-1	5.1			.219E+2	7.6			.203E-2	7.5
2	10	39.	261.3	26	10	36.	263.3	51	10	59.	257.6	57	10	62.	260.8	48
	5	50.	.518E-2	.1	12	38.	.887E-3	.3	5	64.	.643E-2	.1	12	62.	.855E-2	-1.9
			.247E+2	4.5			.116E-1	2.9			.276E+2	5.2			.781E-3	5.4
3	10	46.	261.6	26	10	38.	263.1	40	10	57.	258.2	45	10	66.	260.4	51
	5	53.	.600E-2	-.8	12	41.	.179E-3	-.6	5	63.	.612E-2	-.4	12	66.	.976E-2	.0
			.225E+2	5.3			.136E-1	2.7			.249E+2	5.1			.341E-3	4.5
4	10	44.	261.7	26	10	40.	263.4	42	10	59.	257.9	53	10	64.	260.2	45
	5	54.	.558E-2	-.4	12	41.	.324E-2	-1.0	5	65.	.693E-2	-.1	12	65.	.796E-2	.1
			.264E+2	4.3			.739E-2	3.0			.231E+2	5.7			.340E-2	3.7
5	10	38.	261.7	19	10	39.	263.1	30	10	59.	258.0	38	10	66.	260.4	38
	5	48.	.497E-2	.1	12	42.	.723E-3	.4	5	63.	.731E-2	.3	12	67.	.690E-2	.7
			.235E+2	5.3			.121E-1	4.3			.201E+2	5.2			.502E-2	5.9
6	10	45.	261.3	29	10	42.	263.0	49	10	59.	258.1	46	10	65.	260.5	50
	5	55.	.560E-2	2.0	12	45.	.561E-3	.3	5	64.	.704E-2	.4	12	65.	.907E-2	-.4
			.263E+2	3.4			.128E-1	4.8			.279E+2	4.2			.105E-2	4.7

STATIONS 91162 78861 76801 91366 61902 (LOW LATITUDES)

PERIOD / RUN	72/347 - 73/115				73/116 - 73/288				73/289 - 74/115				74/116 - 74/360			
1	10	56.	263.1	118	10	32.	263.4	172	10	32.	264.5	222	10	23.	262.6	226
	12	57.	.904E-2	0.0	12	34.	.106E-1	0.0	12	32.	.840E-2	0.0	12	25.	.109E-1	0.0
			-.431E-2	5.4			-.764E-2	4.3			-.234E-2	4.6			-.643E-2	4.3
2	10	56.	262.6	19	10	33.	263.3	32	10	32.	264.4	35	10	19.	262.6	37
	12	57.	.995E-2	.5	12	36.	.113E-1	.7	12	32.	.101E-1	.0	12	21.	.102E-1	.4
			-.657E-2	3.7			-.805E-2	3.7			-.485E-2	2.9			-.610E-2	3.2
3	10	56.	263.1	17	10	32.	263.6	29	10	32.	264.5	38	10	22.	262.7	39
	12	57.	.971E-2	1.9	12	34.	.103E-1	-.4	12	33.	.717E-2	-.3	12	23.	.103E-1	-.6
			-.822E-2	3.3			-.726E-2	3.5			.163E-2	4.7			-.557E-2	3.5
4	10	55.	263.0	17	10	32.	263.3	26	10	32.	264.3	33	10	23.	262.6	30
	12	56.	.843E-2	-.6	12	33.	.967E-2	.7	12	33.	.912E-2	1.1	12	25.	.107E-1	-.3
			-.352E-2	3.8			-.525E-2	3.9			-.285E-2	3.9			-.587E-2	3.3
5	10	56.	263.1	9	10	32.	263.4	20	10	32.	264.4	22	10	22.	262.4	23
	12	56.	.921E-2	1.2	12	33.	.105E-1	.4	12	32.	.770E-2	.1	12	23.	.105E-1	1.0
			-.453E-2	2.5			-.639E-2	2.7			.562E-3	4.5			-.553E-2	3.0
6	10	52.	263.3	13	10	30.	263.4	31	10	32.	264.6	41	10	23.	262.6	36
	12	53.	.857E-2	-.4	12	31.	.102E-1	.5	12	32.	.842E-2	-.5	12	26.	.110E-1	-.4
			-.392E-2	3.7			-.631E-2	3.0			-.270E-2	4.4			-.691E-2	4.4

1.0 MB TEMPERATURE

STATIONS 04202 70102 72913 76124 (HIGH LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	6 88. 255.7 81 5 92. .955E+2 0.0 .180E+2 16.0	6 91. 273.3 117 5 91. .867E+2 0.0 .801E+1 9.7	6 84. 252.3 121 5 83. .107E+3 0.0 .115E+2 11.9	6 95. 261.0 173 9 95. .131E+3 0.0 -.280E+2 18.2
2	6 88. 255.3 17 5 93. .917E+2 1.8 .194E+2 5.5	6 89. 274.1 17 5 89. .842E+2 -.3 .842E+1 2.5	6 79. 252.2 17 5 83. .102E+3 -.7 .113E+2 3.3	6 95. 262.0 31 9 95. .128E+3 -.3 -.214E+2 4.7
3	6 87. 256.2 15 5 91. .967E+2 1.1 .188E+2 4.7	6 91. 273.1 17 5 91. .845E+2 2.8 .107E+2 1.9	6 81. 252.4 20 5 85. .102E+3 2.4 .118E+2 4.7	6 95. 260.9 24 9 95. .129E+3 -1.3 -.272E+2 4.9
4	6 86. 255.0 12 5 93. .926E+2 .4 .189E+2 5.3	6 92. 273.4 14 5 92. .857E+2 -.8 .910E+1 3.2	6 79. 252.5 16 5 83. .102E+3 -3.6 .106E+2 3.7	6 95. 261.5 27 9 95. .127E+3 -1.0 -.176E+2 4.1
5	6 89. 255.6 9 5 93. .954E+2 -4.3 .175E+2 6.8	6 92. 272.8 11 5 92. .860E+2 .8 .738E+1 2.8	6 79. 252.3 12 5 84. .965E+2 -1.8 .126E+2 4.3	6 94. 260.9 16 9 95. .130E+3 -.4 -.256E+2 2.9
6	6 86. 255.6 10 5 90. .952E+2 -2.0 .175E+2 3.9	6 91. 273.1 17 5 91. .858E+2 .9 .861E+1 2.3	6 78. 252.7 26 5 82. .983E+2 -.5 .117E+2 4.0	6 94. 260.3 35 9 95. .136E+3 .2 -.365E+2 3.9

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	4 26. 269.6 177 5 28. .416E+2 0.0 .905E+1 6.3	6 30. 268.8 267 5 30. .817E+2 0.0 .522E-1 4.7	6 31. 264.7 309 4 39. .622E+2 0.0 .352E+2 5.9	6 47. 267.1 321 5 49. .870E+2 0.0 .142E+2 5.9
2	4 29. 269.7 20 5 29. .464E+2 .0 .413E+1 6.0	6 31. 269.1 81 5 31. .841E+2 -.2 .826E+0 3.6	6 30. 264.2 54 4 39. .602E+2 .1 .343E+2 4.9	6 40. 267.4 47 5 43. .792E+2 -1.3 .149E+2 4.2
3	4 24. 269.6 26 5 25. .409E+2 -.3 .833E+1 4.6	6 28. 268.0 40 5 28. .785E+2 .2 .243E+1 2.6	6 31. 264.1 44 4 38. .595E+2 .8 .347E+2 4.6	6 49. 267.0 50 5 52. .868E+2 .8 .176E+2 4.3
4	4 27. 269.6 26 5 28. .430E+2 .8 .792E+1 4.6	6 35. 269.1 42 5 36. .747E+2 -1.2 .799E+1 5.1	6 32. 264.1 51 4 40. .634E+2 -.2 .346E+2 4.7	6 47. 266.9 44 5 49. .876E+2 .1 .130E+2 4.2
5	4 27. 269.5 19 5 27. .459E+2 .6 .476E+1 5.0	6 30. 268.7 29 5 31. .867E+2 1.5 -.355E+1 3.7	6 32. 264.3 37 4 40. .641E+2 -.5 .350E+2 4.6	6 46. 267.0 37 5 47. .885E+2 1.1 .107E+2 4.4
6	4 26. 269.4 29 5 28. .395E+2 2.0 .109E+2 4.4	6 27. 268.7 49 5 27. .824E+2 .5 -.444E+1 3.8	6 37. 264.2 45 4 45. .694E+2 1.1 .356E+2 5.1	6 46. 267.2 50 5 49. .863E+2 .1 .130E+2 5.1

STATIONS 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	6 35. 269.7 116 5 43. .543E+2 0.0 .217E+2 5.6	5 21. 267.9 164 6 24. .250E+2 0.0 .626E+2 4.5	5 14. 270.0 214 6 16. .144E+2 0.0 .452E+2 4.5	6 22. 267.7 224 5 29. .444E+2 0.0 .250E+2 4.0
2	6 37. 269.5 19 5 44. .567E+2 .1 .215E+2 3.4	5 19. 267.9 31 6 24. .226E+2 -.3 .784E+2 2.8	5 16. 269.9 34 6 18. .145E+2 .2 .477E+2 4.3	6 20. 267.7 36 5 28. .404E+2 .2 .260E+2 2.8
3	6 23. 270.2 17 5 34. .343E+2 -2.0 .223E+2 4.8	5 21. 267.9 28 6 24. .226E+2 .9 .681E+2 4.3	5 13. 270.3 35 6 15. .118E+2 -1.5 .486E+2 5.0	6 23. 267.8 39 5 30. .468E+2 -.9 .252E+2 3.2
4	6 37. 269.7 16 5 46. .546E+2 .8 .262E+2 3.7	5 19. 267.9 23 6 22. .226E+2 .4 .585E+2 4.5	5 14. 270.1 30 6 15. .174E+2 -.4 .355E+2 3.9	6 21. 267.7 29 5 27. .418E+2 .2 .243E+2 2.5
5	6 37. 269.7 10 5 46. .543E+2 1.2 .215E+2 5.7	5 23. 267.9 20 6 27. .254E+2 .9 .713E+2 4.1	5 12. 270.0 22 6 14. .137E+2 -.5 .416E+2 4.6	6 19. 267.8 23 5 26. .347E+2 -.3 .252E+2 3.4
6	6 31. 269.9 13 5 38. .524E+2 -.3 .195E+2 4.8	5 21. 267.9 29 6 23. .260E+2 .5 .592E+2 3.1	5 15. 270.0 40 6 20. .113E+2 -.0 .710E+2 4.2	6 23. 267.6 35 5 29. .497E+2 .8 .224E+2 3.5

.4 MB TEMPERATURE

STATIONS 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	4 70. 259.0 77 6 83. .604E+2 0.0 .879E+2 15.6	6 69. 269.2 96 8 73. .116E+3 0.0 -.619E+2 7.4	5 39. 259.1 112 6 44. .251E+2 0.0 .281E+2 10.9	6 63. 262.7 155 7 74. .182E+3 0.0 -.117E+3 10.5
2	4 69. 258.5 15 6 85. .580E+2 1.5 .819E+2 6.5	6 70. 269.9 15 8 74. .125E+3 -.2 -.672E+2 3.9	5 36. 259.0 15 6 41. .236E+2 .3 .304E+2 7.0	6 60. 263.3 26 7 75. .187E+3 -.2 -.124E+3 7.1
3	4 70. 259.4 15 6 83. .642E+2 1.6 .871E+2 6.9	6 66. 269.0 11 8 71. .122E+3 1.6 -.709E+2 2.9	5 36. 259.7 17 6 42. .222E+2 -2.5 .304E+2 8.1	6 66. 262.6 22 7 75. .167E+3 .3 -.102E+3 5.9
4	4 71. 259.7 12 6 83. .610E+2 -4.0 .856E+2 6.0	6 77. 269.4 14 8 79. .102E+3 -1.5 -.438E+2 5.6	5 43. 259.2 14 6 47. .279E+2 -2.3 .235E+2 9.6	5 67. 262.3 25 7 74. .169E+3 1.3 -.103E+3 5.2
5	4 70. 258.9 5 6 84. .608E+2 1.1 .881E+2 2.8	6 68. 268.7 4 8 76. .119E+3 5.8 -.697E+2 5.3	5 41. 258.7 11 6 46. .252E+2 3.8 .279E+2 8.8	6 63. 262.5 14 7 75. .176E+3 -1.1 -.112E+3 5.4
6	4 71. 259.4 9 6 84. .636E+2 -1.1 .573E+2 6.8	6 66. 269.1 12 8 72. .127E+3 .9 -.761E+2 2.7	5 37. 259.3 20 6 41. .238E+2 1.1 .257E+2 6.5	6 61. 262.5 33 7 77. .210E+3 -.9 -.144E+3 6.3

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	6 8. 260.6 167 3 9. .465E+2 0.0 -.198E-2 6.0	4 17. 260.7 238 6 18. .845E+2 0.0 .193E+2 5.4	4 4. 260.5 292 6 4. .282E+2 0.0 -.815E+1 6.2	6 9. 258.1 300 4 14. .391E+2 0.0 .289E+2 5.3
2	6 10. 260.4 24 3 12. .601E+2 .5 -.321E-2 6.3	4 19. 260.9 47 6 20. .948E+2 -.5 .213E+2 4.5	4 4. 260.8 47 6 4. .270E+2 -1.8 -.375E+1 6.6	6 11. 258.3 42 4 13. .435E+2 -.6 .194E+2 .6
3	6 9. 260.6 26 3 10. .492E+2 -.5 -.190E-2 6.1	4 19. 260.8 37 6 20. .921E+2 .5 .173E+2 4.3	4 3. 260.4 38 6 4. .275E+2 .5 -.111E+2 6.7	6 9. 258.0 45 4 15. .392E+2 .8 .314E+2 4.4
4	6 7. 260.7 26 3 8. .444E+2 -.4 -.228E-2 6.1	4 17. 260.9 60 6 19. .744E+2 -.5 .272E+2 5.9	4 5. 260.3 46 6 5. .301E+2 1.3 -.102E+2 5.5	6 10. 258.0 40 4 15. .412E+2 .7 .312E+2 4.8
5	6 7. 260.6 17 3 8. .464E+2 .5 -.186E-2 4.8	4 18. 260.5 27 6 19. .924E+2 2.1 .144E+2 3.3	4 4. 260.4 32 6 4. .241E+2 .3 .169E+1 5.2	6 8. 258.1 36 4 14. .308E+2 .4 .311E+2 6.1
6	6 9. 260.3 29 3 10. .504E+2 1.5 -.255E-2 6.1	4 16. 261.0 43 6 17. .806E+2 -1.4 .172E+2 5.2	4 5. 260.5 42 6 5. .302E+2 .0 -.840E+1 6.7	6 9. 258.0 48 4 14. .393E+2 1.2 .293E+2 5.4

STATIONS 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD / RUN	72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	5 5. 264.6 97 3 6. .930E+1 0.0 -.169E-2 4.4	5 13. 261.6 142 4 14. .291E+2 0.0 .359E+2 5.3	5 16. 261.4 199 4 19. .210E+2 0.0 .330E+2 4.9	5 20. 260.4 210 6 21. .520E+2 0.0 -.343E+2 5.7
2	5 5. 264.6 17 3 6. .101E+2 .4 -.146E-2 3.7	5 17. 261.6 26 4 20. .349E+2 -.7 .510E+2 4.5	5 16. 261.5 32 4 19. .211E+2 -.8 .353E+2 3.7	5 20. 260.6 34 6 22. .552E+2 -.9 -.490E+2 5.4
3	5 5. 264.6 16 3 5. .101E+2 .6 -.684E-3 3.9	5 11. 261.6 25 4 11. .307E+2 .8 .195E+2 4.3	5 13. 261.5 34 4 17. .171E+2 -.2 .403E+2 3.6	5 24. 260.4 36 6 25. .572E+2 -.4 -.366E+2 5.4
4	5 6. 264.5 14 3 8. .115E+2 1.6 -.262E-2 3.6	5 16. 261.8 20 4 17. .355E+2 -.9 .334E+2 4.7	5 19. 261.4 27 4 23. .201E+2 -.2 .374E+2 6.3	5 20. 260.4 27 6 21. .520E+2 -.2 -.298E+2 4.1
5	5 7. 264.8 7 3 12. .845E+1 -2.8 -.308E-2 9.4	5 14. 261.7 18 4 17. .266E+2 .0 .870E+2 5.1	5 14. 261.6 21 4 16. .213E+2 -1.5 .293E+2 5.4	5 18. 260.4 22 6 19. .532E+2 .2 -.433E+2 3.5
6	5 4. 264.6 11 3 4. .872E+1 .5 -.896E-3 2.7	5 11. 261.4 27 4 14. .203E+2 1.4 .651E+2 4.9	5 16. 261.2 40 4 17. .169E+2 1.2 .413E+2 3.8	5 19. 260.7 33 6 19. .506E+2 -1.9 -.371E+2 4.8

10.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD:	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/209			
RUN																
1	3	78.	222.6	84	3	84.	230.8	63	3	85.	222.3	100	3	87.	231.1	69
	12	90.	.244E-1	0.0	7	87.	.485E-2	0.0	4	89.	.856E-2	0.0	7	92.	.266E-2	0.0
			-.140E-1	8.2			.390E+2	7.5			-.305E+2	9.2			.487E+2	8.7
2	3	80.	223.0	10	3	87.	230.6	8	3	85.	221.7	21	3	88.	231.0	5
	12	89.	.226E-1	-.9	7	89.	.595E-2	-1.1	4	90.	.831E-2	.8	7	92.	.358E-2	.1
			-.124E-1	3.6			.300E+2	3.4			-.322E+2	3.3			.497E+2	1.9
3	3	78.	222.6	18	3	85.	230.2	8	3	84.	222.5	19	3	89.	231.3	17
	12	91.	.254E-1	-.5	7	88.	.475E-2	1.3	4	89.	.737E-2	-.6	7	92.	.401E-2	1.1
			-.152E-1	3.8			.384E+2	2.8			-.356E+2	3.7			.497E+2	2.5
4	3	79.	222.4	15	3	88.	230.9	14	3	83.	221.9	14	3	86.	230.7	13
	12	87.	.241E-.	-1.1	7	89.	.638E-2	-1.2	4	88.	.800E-2	-.1	7	91.	.343E-2	1.3
			-.129E-1	2.4			.245E+2	3.6			-.346E+2	2.5			.503E+2	1.4
5	3	77.	222.8	13	3	84.	230.8	9	3	86.	222.8	20	3	86.	231.8	13
	12	89.	.251E-1	.1	7	88.	.444E-2	1.1	4	90.	.895E-2	-.5	7	91.	.336E-2	-.2
			-.145E-1	2.9			.403E+2	2.8			-.267E+2	3.4			.530E+2	2.6
6	3	79.	222.7	12	3	85.	230.1	5	3	86.	221.6	13	3	89.	231.3	9
	12	90.	.239E-1	-.7	7	88.	.501E-2	2.1	4	90.	.897E-2	1.2	7	93.	.434E-2	-.8
			-.134E-1	3.5			.337E+2	3.1			-.286E+2	3.0			.449E+2	3.2

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

PERIOD:	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/209			
RUN																
1	3	53.	227.8	181	4	12.	233.8	98	3	34.	230.1	166	3	20.	234.0	116
	7	61.	.197E-1	0.0	3	19.	-.368E+2	0.0	4	48.	.966E-2	0.0	7	26.	.144E-1	0.0
			-.572E+2	4.4			.399E-2	2.5			-.594E+2	4.7			-.503E+2	3.2
2	3	54.	227.9	27	4	10.	234.1	17	3	34.	230.0	25	3	24.	234.1	16
	7	63.	.206E-1	-.9	3	16.	-.343E+2	-1.3	4	49.	.962E-2	.5	7	33.	.166E-1	.3
			-.622E+2	2.3			.391E-2	1.5			-.642E+2	3.1			-.641E+2	3.7
3	3	54.	228.1	29	4	10.	234.0	16	3	26.	230.0	33	3	14.	234.1	16
	7	62.	.196E-1	-1.3	3	17.	-.351E+2	-1.6	4	41.	.901E-2	.4	7	20.	.129E-1	-.2
			-.554E+2	2.4			.411E-2	1.4			-.590E+2	2.9			-.492E+2	2.6
4	3	54.	227.9	34	4	15.	233.8	15	3	36.	229.8	25	3	18.	233.8	18
	7	62.	.200E-1	-.9	3	22.	-.408E+2	-.5	4	49.	.948E-2	1.4	7	23.	.141E-1	.8
			-.551E+2	2.5			.408E-2	2.6			-.550E+2	3.9			-.481E+2	2.4
5	3	53.	228.0	31	4	11.	233.8	14	3	31.	230.4	24	3	21.	234.0	16
	7	61.	.195E-1	-.2	3	16.	-.351E+2	-.6	4	48.	.873E-2	-.5	7	28.	.154E-1	.4
			-.570E+2	2.7			.366E-2	1.9			-.662E+2	3.7			-.569E+2	2.7
6	3	54.	227.9	20	4	10.	233.9	9	3	31.	230.0	26	3	19.	234.1	13
	7	60.	.168E-1	-.5	3	13.	-.370E+2	-.9	4	48.	.925E-2	.0	7	24.	.143E-1	-.9
			-.482E+2	2.7			.275E-2	2.1			-.616E+2	3.6			-.495E+2	1.4

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD:	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/209			
RUN																
1	3	39.	231.9	117	4	46.	233.1	85	4	26.	232.1	108	3	31.	233.5	110
	11	40.	.655E-2	0.0	11	50.	-.566E+2	0.0	5	28.	-.426E+2	0.0	4	33.	.137E-1	0.0
			.324E-2	3.3			.302E-2	3.4			-.118E+2	3.3			-.219E+2	3.3
2	3	39.	231.9	18	4	44.	233.4	14	4	24.	232.2	18	3	29.	233.4	18
	11	40.	.761E-2	-.5	11	49.	-.537E+2	-1.2	5	26.	-.415E+2	-.2	4	30.	.141E-1	-.1
			.267E-2	2.4			.330E-2	2.7			-.107E+2	2.4			-.210E+2	1.7
3	3	37.	231.7	20	4	45.	233.3	15	4	23.	232.0	20	3	29.	233.6	19
	11	38.	.675E-2	.3	11	50.	-.551E+2	-.5	5	28.	-.345E+2	.3	4	30.	.134E-1	-.7
			.314E-2	1.9			.342E-2	1.8			-.162E+2	2.4			-.186E+2	2.3
4	3	41.	232.0	24	4	41.	233.3	14	4	25.	232.1	22	3	32.	233.3	14
	11	44.	.702E-2	-.3	11	44.	-.483E+2	-.3	5	28.	-.407E+2	.2	4	34.	.150E-1	1.4
			.374E-2	2.4			.256E-2	3.2			-.111E+2	3.2			-.188E+2	2.5
5	3	40.	231.7	19	4	41.	233.3	18	4	37.	232.1	19	3	32.	233.6	13
	11	43.	.516E-2	.5	11	44.	-.558E+2	.2	5	38.	-.636E+2	.5	4	33.	.144E-1	-.5
			.401E-2	2.9			.220E-2	2.3			-.489E+1	4.1			-.190E+2	2.1
6	3	37.	231.8	19	4	45.	233.5	11	4	31.	232.0	14	3	27.	233.4	16
	11	39.	.634E-2	.4	11	50.	-.641E+2	-.9	5	33.	-.461E+2	.7	4	30.	.127E-1	.4
			.313E-2	2.9			.370E-2	2.5			-.118E+2	3.6			-.214E+2	3.1

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

5.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD: RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	8	88.	226.1	83	8	91.	242.4	63	8	87.	226.6	115	7	93.	240.9	68
	12	93.	.155E+3	0.0	7	94.	.157E+2	0.0	4	89.	.740E+2	0.0	4	95.	.748E+2	0.0
			-.130E-1	11.1			.829E+2	10.4			-.204E+2	11.4			-.521E+2	10.8
2	8	89.	226.6	9	8	93.	242.1	8	8	85.	226.2	23	7	94.	240.8	5
	12	93.	.152E+3	-3.0	7	95.	.357E+2	-1.7	4	89.	.714E+2	-.6	4	95.	.766E+2	-.9
			-.128E-1	3.9			.639E+2	3.4			-.236E+2	3.2			-.488E+2	1.8
3	8	88.	226.1	17	8	91.	241.9	8	8	85.	226.8	21	7	94.	241.2	17
	12	93.	.158E+3	-.3	7	94.	.195E+2	.1	4	88.	.718E+2	-.3	4	96.	.744E+2	.8
			-.137E-1	3.1			.811E+2	2.7			-.212E+2	4.2			-.595E+2	3.4
4	8	88.	225.9	15	8	93.	242.2	14	8	85.	226.4	19	7	94.	240.8	12
	12	91.	.149E+3	-.9	7	94.	.388E+2	-.3	4	88.	.743E+2	-.1	4	96.	.718E+2	.5
			-.112E-1	2.7			.576E+2	3.4			-.215E+2	3.3			-.653E+2	3.5
5	8	86.	226.6	13	8	90.	242.8	9	8	86.	227.1	23	7	93.	241.8	13
	12	93.	.161E+3	-.5	7	93.	.159E+2	.4	4	89.	.721E+2	.7	4	96.	.736E+2	-.3
			-.151E-1	4.1			.645E+2	1.8			-.215E+2	4.2			-.595E+2	3.7
6	8	86.	226.3	12	8	91.	241.6	5	8	88.	225.8	15	7	94.	241.0	9
	12	92.	.151E+3	-.2	7	94.	.178E+2	.8	4	90.	.758E+2	-.4	4	95.	.809E+2	1.1
			-.124E-1	3.1			.805E+2	2.2			-.189E+2	4.1			-.421E+2	2.6

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

PERIOD: RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	8	54.	244.2	186	8	49.	244.4	102	8	48.	240.0	174	8	51.	243.9	131
	4	58.	.910E+2	0.0	3	52.	.201E+2	0.0	4	52.	.842E+2	0.0	4	53.	.114E+3	0.0
			-.475E+2	6.3			.145E-1	4.1			-.419E+2	6.0			.330E+2	4.5
2	8	55.	244.2	29	8	51.	244.5	19	8	47.	239.7	28	8	50.	244.1	17
	4	59.	.846E+2	.3	3	54.	.162E+2	-.7	4	54.	.826E+2	.6	4	52.	.114E+3	-.1
			-.529E+2	4.5			.145E-1	3.4			-.509E+2	4.3			.344E+2	3.0
3	8	55.	244.5	30	8	45.	244.3	18	8	43.	239.8	33	8	51.	244.0	19
	4	57.	.930E+2	-1.5	3	47.	.286E+2	.4	4	49.	.844E+2	.5	4	52.	.116E+3	.8
			-.342E+2	3.8			.119E-1	3.0			-.471E+2	4.4			.234E+2	2.2
4	8	58.	244.2	34	8	52.	244.2	16	8	48.	239.8	25	8	52.	244.0	23
	4	61.	.924E+2	.7	3	56.	.738E+0	-.3	4	51.	.869E+2	1.0	4	54.	.115E+3	-.4
			-.543E+2	4.3			.175E-1	3.5			-.348E+2	4.0			.343E+2	3.3
5	8	54.	244.5	32	8	51.	244.4	15	8	45.	240.2	25	8	51.	243.8	23
	4	57.	.933E+2	.7	3	53.	.204E+2	-1.1	4	49.	.872E+2	-.2	4	52.	.114E+3	.4
			-.463E+2	4.1			.147E-1	2.6			-.373E+2	3.1			.196E+2	3.0
6	8	55.	244.2	20	8	45.	244.4	11	8	46.	239.9	27	8	47.	243.8	15
	4	58.	.935E+2	.1	3	48.	.227E+2	1.1	4	51.	.850E+2	-.1	4	50.	.110E+3	.6
			-.484E+2	4.0			.127E-1	4.1			-.433E+2	3.7			.328E+2	1.9

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD: RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	8	38.	242.9	122	8	43.	244.7	90	8	23.	243.5	111	8	24.	244.6	112
	12	40.	.162E+3	0.0	7	46.	.888E+2	0.0	4	26.	.793E+2	0.0	7	27.	.608E+2	0.0
			-.105E-1	5.1			.779E+2	4.9			-.224E+2	3.9			.601E+2	4.8
2	8	40.	242.8	18	8	40.	244.8	15	8	26.	243.5	18	8	24.	244.8	18
	12	44.	.197E+3	-.7	7	42.	.995E+2	-.3	4	28.	.861E+2	-.2	7	27.	.646E+2	-1.8
			-.161E-1	4.7			.592E+2	3.3			-.178E+2	4.1			.572E+2	3.4
3	8	42.	242.9	22	8	47.	244.8	15	8	15.	243.8	20	8	21.	245.0	19
	12	43.	.164E+3	-1.0	7	48.	.109E+3	-.3	4	17.	.632E+2	-1.2	7	23.	.482E+2	-1.8
			-.878E-2	3.4			.553E+2	3.4			-.178E+2	3.1			.661E+2	3.2
4	8	40.	243.0	25	8	34.	245.2	14	8	28.	243.4	22	8	26.	244.8	15
	12	42.	.170E+3	-.2	7	38.	.702E+2	-1.5	4	31.	.912E+2	.8	7	28.	.698E+2	-.7
			-.103E-1	3.9			.814E+2	3.7			-.257E+2	3.8			.631E+2	3.7
5	8	39.	242.6	20	8	39.	245.0	18	8	33.	243.6	20	8	22.	245.0	14
	12	41.	.177E+3	.0	7	43.	.821E+2	-.5	4	36.	.917E+2	.5	7	24.	.527E+2	-1.7
			-.127E-1	3.6			.680E+2	3.4			-.242E+2	5.2			.618E+2	2.7
6	8	38.	242.6	19	8	42.	244.8	11	8	27.	243.3	15	8	21.	244.6	16
	12	39.	.147E+3	1.5	7	44.	.107E+3	.4	4	31.	.835E+2	1.4	7	21.	.722E+2	.3
			-.771E-2	4.3			.641E+2	3.6			-.254E+2	4.4			.397E+2	3.6

2.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	11	87.	237.2	85	7	95.	263.1	60	7	84.	239.6	112	7	95.	258.7	69
	7	88.	.779E-2	0.0	4	96.	.139E+3	0.0	4	85.	.107E+3	0.0	4	96.	.982E+2	0.0
			.629E+2	13.5			.393E+2	12.0			-.867E+1	12.7			-.373E+2	12.6
2	11	89.	238.0	10	7	95.	263.0	8	7	85.	239.9	27	7	96.	258.6	5
	7	90.	.782E-2	-2.8	4	96.	.136E+3	-1.2	4	85.	.114E+3	-.3	4	96.	.995E+2	-2.0
			.589E+2	6.8			.324E+2	2.3			-.366E+1	5.6			-.351E+2	1.5
3	11	90.	237.8	17	7	95.	262.8	8	7	82.	240.3	21	7	95.	259.4	17
	7	91.	.953E-2	-1.6	4	96.	.139E+3	-.3	4	83.	.104E+3	-2.2	4	96.	.952E+2	-.2
			.504E+2	5.7			.375E+2	2.0			-.723E+1	6.0			-.476E+2	3.0
4	11	85.	237.2	17	7	95.	262.0	12	7	83.	239.6	17	7	95.	258.3	13
	7	87.	.659E-2	.8	4	96.	.130E+3	.3	4	83.	.106E+3	.7	4	96.	.983E+2	1.5
			.697E+2	4.0			.177E+2	2.8			-.100E+2	4.3			-.381E+2	2.5
5	11	86.	238.5	14	7	94.	263.1	8	7	83.	240.2	22	7	94.	259.7	13
	7	87.	.751E-2	-.2	4	95.	.139E+3	.7	4	84.	.107E+3	-.4	4	95.	.954E+2	-.6
			.647E+2	3.4			.381E+2	1.9			-.653E+1	4.3			-.416E+2	2.8
6	11	87.	237.4	12	7	96.	262.4	5	7	83.	238.5	16	7	96.	259.0	9
	7	88.	.727E-2	-.5	4	96.	.139E+3	-1.5	4	84.	.108E+3	.5	4	96.	.103E+3	.1
			.680E+2	3.3			.395E+2	3.6			-.443E+1	5.0			-.291E+2	2.9

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	5	49.	265.0	192	7	39.	263.3	100	7	58.	254.3	174	13	39.	262.2	132
	7	60.	.369E+2	0.0	10	45.	-.412E+2	0.0	13	60.	.242E+3	0.0	7	39.	.945E-2	0.0
			.824E+2	7.1			.104E-1	4.6			-.908E-2	8.3			-.314E+2	4.8
2	5	49.	264.7	31	7	49.	263.6	19	7	58.	254.2	28	13	40.	262.3	18
	7	59.	.385E+2	1.2	10	56.	-.507E+2	-1.9	13	60.	.263E+3	-.5	7	40.	.887E-2	.2
			.769E+2	3.9			.120E-1	4.2			-.110E-1	4.8			-.194E+2	3.1
3	5	50.	264.8	32	7	47.	265.4	18	7	57.	254.4	32	13	41.	262.1	20
	7	62.	.360E+2	-.1	10	55.	-.620E+2	-1.4	13	58.	.250E+3	-.7	7	42.	.116E-1	1.7
			.853E+2'	4.5			.126E-1	4.9			-.933E-2	4.2			-.580E+2	3.4
4	5	51.	265.0	34	7	42.	262.7	16	7	59.	254.3	24	13	39.	262.2	23
	7	62.	.378E+2	1.4	10	49.	-.540E+2	2.1	13	60.	.244E+3	.7	7	39.	.847E-2	-.0
			.900E+2	4.0			.114E-1	3.7			-.902E-2	5.8			-.173E+2	3.4
5	5	49.	265.2	32	7	42.	263.0	14	7	60.	254.7	24	13	48.	262.5	23
	7	58.	.360E+2	-.2	10	50.	-.743E+2	.4	13	62.	.241E+3	-.3	7	48.	.921E-2	-2.3
			.734E+2	5.5			.129E-1	4.5			-.888E-2	6.3			-.166E+2	4.4
6	5	50.	265.0	22	7	41.	263.5	9	7	58.	254.0	28	13	46.	262.2	15
	7	59.	.428E+2	-.2	10	47.	-.432E+2	-.9	13	60.	.219E+3	.2	7	46.	.101E-1	-.2
			.771E+2	4.4			.106E-1	5.5			-.737E-2	5.3			-.322E+2	4.9

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	7	30.	263.5	122	7	15.	261.5	89	7	45.	263.8	111	7	31.	262.3	112
	11	32.	.776E+2	0.0	9	21.	.153E+3	0.0	6	50.	.880E+2	0.0	8	31.	.731E+2	0.0
			.503E-2	5.5			-.101E+3	4.7			.989E+2	5.5			.310E+2	3.9
2	7	28.	263.3	18	7	16.	261.7	14	7	50.	263.6	18	7	36.	262.3	18
	11	30.	.678E+2	.7	9	28.	.167E+3	-.3	6	55.	.639E+2	.3	8	36.	.897E+2	-.7
			.516E-2	4.3			-.135E+3	6.4			.108E+3	5.0			.261E+2	3.2
3	7	29.	263.3	22	7	17.	261.7	15	7	42.	264.1	20	7	28.	262.5	19
	11	31.	.726E+2	-.1	9	18.	.135E+3	-1.5	6	48.	.808E+2	-.3	8	29.	.813E+2	-.6
			.467E-2	5.0			-.627E+2	3.8			.104E+3	3.2			.186E+2	2.9
4	7	24.	263.8	25	7	9.	262.0	14	7	44.	263.9	22	7	34.	262.2	15
	11	27.	.744E+2	-1.6	9	20.	.140E+3	-1.6	6	50.	.799E+2	-.4	8	35.	.791E+2	1.3
			.421E-2	4.2			-.138E+3	5.0			.103E+3	3.5			.361E+2	3.4
5	7	31.	263.1	20	7	11.	261.5	18	7	51.	264.2	20	7	32.	262.4	14
	11	33.	.943E-2	.9	9	19.	.149E+3	.6	6	53.	.121E+3	-.7	8	33.	.724E+2	.2
			.374E-2	4.5			-.119E+3	4.1			.588E+2	5.2			.386E+2	2.3
6	7	33.	263.5	19	7	12.	261.7	11	7	51.	263.6	14	7	27.	262.4	16
	11	34.	.111E+3	-.3	9	19.	.145E+3	-1.5	6	55.	.989E+2	.8	8	28.	.659E+2	-.4
			.331E-2	4.9			-.109E+3	3.2			.852E+2	5.5			.308E+2	3.8

1.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 75/001 - 75/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	6 81. 249.0 84 8 83. .162E+3 0.0 -.276E+2 12.7	6 85. 270.8 60 11 88. .256E+3 0.0 -.962E-2 10.3	6 74. 249.4 112 9 76. .118E+3 0.0 .212E+2 13.8	6 90. 267.8 68 9 92. .697E+2 0.0 .592E+2 11.2
2	6 81. 249.6 10 8 85. .163E+3 -4.8 -.320E+2 5.4	6 85. 270.8 8 11 88. .241E+3 -.9 -.884E-2 3.6	6 77. 249.8 27 9 80. .122E+3 .0 .282E+2 8.8	6 91. 267.9 5 9 93. .627E+2 -2.4 .693E+2 3.5
3	6 83. 249.7 17 8 85. .161E+3 -2.0 -.267E+2 5.9	6 90. 270.7 8 11 91. .237E+3 -.5 -.790E-2 6.1	6 71. 250.0 21 9 72. .122E+3 -1.2 .149E+2 6.6	6 91. 268.1 17 9 93. .718E-2 .3 .544E+2 4.0
4	6 80. 249.3 17 8 82. .163E+3 1.1 -.286E+2 4.9	6 85. 270.1 12 11 88. .260E+3 1.7 -.991E-2 3.2	6 72. 249.1 19 9 74. .121E+3 .8 .211E+2 5.2	6 90. 267.4 13 9 92. .723E+2 .8 .604E+2 2.7
5	6 81. 250.3 14 8 83. .160E+3 -.6 -.204E+2 5.5	6 84. 271.1 8 11 87. .256E+3 1.5 -.958E-2 3.1	6 75. 250.6 21 9 78. .115E+3 -3.6 .225E+2 7.6	6 89. 268.8 13 9 91. .661E+2 -1.2 .550E+2 3.7
6	6 81. 249.2 12 8 83. .163E+3 -.1 -.257E+2 4.5	6 86. 270.4 5 11 89. .260E+3 -.6 -.987E-2 5.2	6 76. 248.6 16 9 78. .120E+3 -.1 .204E+2 8.5	6 90. 267.7 9 9 91. .804E+2 .9 .456E+2 2.3

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 75/001 - 75/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	6 33. 265.5 191 11 34. .156E+3 0.0 -.372E-2 6.5	6 45. 268.1 99 9 47. .126E+3 0.0 -.601E+2 3.9	6 39. 260.7 170 11 42. .187E+3 0.0 -.824E-2 6.2	6 27. 266.7 132 7 32. .530E+1 0.0 .871E+2 4.8
2	6 38. 265.5 30 11 38. .178E+3 -.2 -.455E-2 5.2	6 51. 268.3 18 9 52. .115E+3 -1.2 -.279E+2 3.5	6 42. 260.6 27 11 46. .202E+3 -.6 -.912E-2 5.2	6 28. 266.6 18 7 33. .729E+1 1.3 .889E+2 3.7
3	6 34. 265.4 32 11 36. .192E+3 -.4 -.642E-2 5.7	6 53. 268.2 18 9 54. .134E+3 -.8 -.534E+2 3.5	6 36. 260.6 31 11 39. .178E+3 .6 -.788E-2 4.5	6 29. 267.0 20 7 35. -.261E+0 -1.4 .927E+2 4.7
4	6 33. 265.7 34 11 34. .173E+3 -.3 -.477E-2 5.1	6 43. 267.8 16 9 44. .110E+3 .7 -.431E+2 3.1	6 38. 260.4 24 11 41. .184E+3 1.9 -.808E-2 4.9	6 27. 266.6 23 7 32. .432E+1 .8 .892E+2 3.4
5	6 31. 265.7 32 11 31. .125E+3 -.0 -.162E-2 5.4	6 42. 268.0 14 9 44. .116E+3 -.7 -.443E+2 2.3	6 40. 260.8 24 11 44. .176E+3 -.4 -.778E-2 6.5	6 32. 266.9 23 7 40. -.219E+1 -2.1 .101E+3 5.1
6	6 32. 265.6 22 11 34. .183E+3 -.9 -.582E-2 6.9	6 51. 268.4 9 9 52. .124E+3 -1.2 -.347E+2 4.2	6 39. 260.7 26 11 42. .183E+3 -1.1 -.818E-2 4.7	6 28. 266.7 15 7 33. .296E+1 -.5 .901E+2 4.2

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 75/001 - .5/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	6 27. 268.9 121 8 32. .198E+3 0.0 -.626E+2 5.6	5 30. 266.5 88 6 34. .300E+2 0.0 .691E+2 4.0	6 33. 268.5 108 8 38. .162E+3 0.0 -.684E+2 4.5	7 9. 266.0 105 8 13. .967E+2 0.0 -.634E+2 3.8
2	6 27. 269.1 18 8 33. .209E+3 -1.3 -.753E+2 4.6	5 30. 266.8 14 6 35. .301E+2 -.9 .742E+2 2.8	6 34. 268.5 17 8 41. .176E+3 -.5 -.794E+2 2.8	7 12. 265.9 16 8 18. .119E+3 .3 -.821E+2 4.1
3	6 30. 268.5 22 8 34. .197E+3 1.8 -.585E+2 4.7	5 32. 266.4 15 6 35. .383E+2 .2 .565E+2 2.6	6 35. 268.8 19 8 43. .175E+3 -1.0 -.825E+2 4.0	7 14. 266.1 17 8 20. .120E+3 -.8 -.849E+2 4.5
4	6 27. 269.2 25 8 34. .209E+3 -1.6 -.755E+2 4.6	5 35. 266.5 14 6 39. .329E+2 2.0 .793E+2 2.7	6 40. 268.6 21 8 46. .182E+3 -.7 -.798E+2 4.1	7 10. 266.2 14 8 13. .100E+3 -.4 -.652E+2 3.1
5	6 29. 268.7 20 8 32. .189E+3 1.2 -.521E+2 4.2	5 25. 266.5 18 6 31. .249E+2 -.4 .786E+2 2.9	6 30. 268.7 20 8 34. .150E+3 -.3 -.648E+2 3.5	7 9. 266.1 12 8 13. .995E+2 -.4 -.706E+2 3.6
6	6 23. 268.8 19 8 26. .180E+3 1.1 -.512E+2 4.1	5 28. 266.5 11 6 35. .229E+2 -.6 .934E-2 3.3	6 36. 268.4 13 8 41. .168E+3 1.3 -.711E+2 3.0	7 14. 266.0 16 8 19. .126E+3 .2 -.817E+2 4.4

ORIGINAL PAGE IS OF POOR QUALITY

.4 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 75/001 - 75/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	5 34. 255.3 82 4 43. .223E+2 0.0 .320E+2 10.7	5 78. 266.8 48 13 84. .534E+2 0.0 .188E-2 7.0	6 30. 254.8 106 13 45. .144E+3 0.0 -.807E-2 11.2	6 68. 265.0 57 5 72. .758E+2 0.0 -.302E+2 7.5
2	5 39. 255.0 10 4 46. .249E+2 -.8 .314E+2 7.7	5 78. 266.9 6 13 85. .555E+2 -1.4 .189E-2 2.8	6 35. 254.8 23 13 49. .140E+3 1.7 -.733E-2 9.6	6 67. 264.9 3 5 72. .766E+2 .9 -.329E+2 2.5
3	5 30. 255.2 17 4 39. .181E+2 1.3 .330E+2 7.7	5 79. 266.7 8 13 86. .521E+2 -.5 .213E-2 3.4	6 29. 255.5 20 13 45. .140E+3 -.8 -.780E-2 9.9	6 70. 265.1 15 5 76. .859E+2 .5 -.343E+2 4.3
4	5 35. 256.1 17 4 42. .214E+2 -2.8 .314E+2 7.4	5 77. 266.7 9 13 87. .454E+2 -.8 .219E-2 4.2	6 29. 253.8 13 13 49. .159E+3 6.5 -.963E-2 7.1	6 69. 264.8 12 5 73. .794E+2 .1 -.287E+2 3.5
5	5 42. 255.8 14 4 47. .291E+2 -3.6 .261E+2 9.7	5 73. 267.3 6 13 81. .504E+2 -1.2 .204E-2 2.0	6 30. 255.5 20 13 43. .130E+3 -3.1 -.720E-2 7.5	6 68. 265.7 11 5 73. .783E+2 -.1 -.294E+2 4.3
6	5 34. 255.7 1[illegible] 4 41. .232E+2 -3.5 .315E+2 5.7	5 79. 266.3 5 13 84. .554E+2 1.8 .170E-2 1.3	6 34. 255.0 15 13 48. .147E+3 -2.5 -.801E-2 7.6	6 67. 264.5 9 5 76. .857E+2 1.7 -.440E+2 4.6

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 75/001 - 75/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	9 25. 256.7 178 4 25. .157E+3 0.0 .265E+2 6.5	5 22. 258.8 92 4 28. .344E+2 0.0 .621E+2 4.5	4 13. 256.6 159 13 21. .613E+2 0.0 .254E-2 4.8	5 28. 258.0 121 4 29. .398E+2 0.0 .246E+2 4.8
2	9 25. 256.7 29 4 26. .152E+3 .1 .239E+2 6.0	5 24. 258.9 17 4 31. .335E+2 -.7 .672E+2 4.1	4 13. 256.4 27 13 21. .652E+2 1.0 .251E-2 4.5	5 27. 258.2 16 4 29. .374E+2 -.9 .318E+2 4.6
3	9 22. 256.9 30 4 24. .158E+3 -1.0 .397E+2 5.6	5 26. 259.2 18 4 28. .386E+2 -2.1 .392E+2 4.3	4 12. 256.7 28 13 19. .571E+2 -.6 .263E-2 4.4	5 32. 257.9 18 4 33. .464E+2 1.4 .160E+2 4.0
4	9 27. 256.6 30 4 27. .157E+3 .5 .133E+2 5.4	5 22. 258.7 15 4 28. .327E+2 .4 .608E+2 3.5	4 14. 256.4 21 13 19. .626E+2 1.5 .230E-2 3.8	5 26. 258.2 20 4 27. .383E+2 -.3 .149E+2 4.6
5	9 25. 257.1 31 4 25. .151E+3 -.7 .190E+2 5.6	5 20. 258.7 12 4 25. .342E+2 .2 .560E+2 3.7	4 15. 256.6 21 13 20. .636E+2 -.4 .209E-2 5.1	5 29. 25[illegible].8 23 4 30. .390E+2 .7 .301E+2 4.1
6	9 21. 257.0 21 4 23. .159E+3 -1.0 .351E+2 4.2	5 28. 258.8 9 4 31. .408E+2 1.0 .481E+2 5.3	4 14. 256.8 24 13 20. .612E+2 -.9 .218E-2 4.3	5 29. 258.2 15 4 30. .396E+2 -.7 .247E+2 4.6

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 75/001 - 75/105	75/106 - 75/288	75/289 - 76/106	76/107 - 76/289
1	4 18. 260.7 115 7 21. .564E+2 0.0 -.565E+2 5.7	4 8. 257.3 85 8 9. .522E+2 0.0 .284E+2 4.6	8 13. 260.1 94 13 17. -.212E+3 0.0 .102E-1 4.8	5 16. 256.6 85 8 17. .333E+2 0.0 -.249E+2 4.5
2	4 17. 261.0 16 7 20. .607E+2 -.6 -.559E+2 4.9	4 4. 257.8 14 8 6. .479E+2 -3.0 .374E+2 3.8	8 13. 260.2 17 13 16. -.177E+3 .0 .685E-2 3.7	5 18. 256.6 13 8 19. .358E+2 .2 -.246E+2 3.6
3	4 20. 260.9 22 7 23. .616E+2 -.0 -.526E+2 4.4	4 8. 257.2 15 8 10. .567E+2 .5 .330E+2 3.7	8 13. 260.2 18 13 17. -.202E+3 -.6 .869E-2 3.4	5 17. 256.6 12 8 18. .397E+2 .6 -.270E+2 3.3
4	4 9. 260.3 25 7 16. .314E+2 1.6 -.764E+2 4.6	4 8. 257.1 14 8 10. .597E+2 1.4 .387E+2 3.5	8 13. 259.8 17 13 17. -.203E+3 .9 .907E-2 4.7	5 17. 256.8 11 8 19. .376E+2 -.9 -.373E+2 3.2
5	4 20. 260.9 20 7 23. .669E+2 .5 -.508E+2 4.3	4 3. 257.3 18 8 4. .319E+2 -.2 .120E+2 4.4	8 18. 260.2 18 13 23. -.232E+3 -1.4 .996E-2 4.6	5 17. 257.0 11 8 19. .343E+2 -2.2 -.376E+2 3.9
6	4 17. 260.7 18 7 21. .547E+2 .7 -.606E+2 4.4	4 5. 257.3 10 8 6. .471E+2 -.6 .284E+2 3.9	8 9. 260.1 12 13 12. -.167E+3 .1 .771E-2 4.5	5 18. 256.6 13 8 19. .263E+2 .3 .205E+2 5.2

ORIGINAL PAGE IS
OF POOR QUALITY

10.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	3	73.	219.3	90	3	85.	233.9	127	3	76.	221.9	169
	11	82.	.227E-1	0.0	4	88.	.641E-2	0.0	12	89.	.314E-1	0.0
			-.651E-2	10.1			-.461E+2	7.9			-.217E-1	9.1
2	3	70.	218.9	18	3	85.	234.2	24	3	78.	221.3	29
	11	85.	.260E-1	-.0	4	87.	.658E-2	-.2	12	90.	.312E-1	.6
			-.866E-2	4.4			-.430E+2	2.6			-.214E-1	3.8
3	3	72.	219.8	15	3	85.	234.3	20	3	76.	221.4	27
	11	79.	.210E-1	-1.1	4	88.	.617E-2	-.4	12	89.	.307E-1	-.2
			-.551E-2	4.1			-.496E+2	3.1			-.209E-1	3.3
4	3	74.	218.9	11	3	86.	233.4	24	3	75.	221.4	28
	11	82.	.221E-1	.8	4	89.	.612E-2	1.3	12	90.	.336E-1	-.2
			-.610E-2	4.0			-.515E+2	3.1			-.239E-1	4.7
5	3	72.	219.7	14	3	83.	234.4	23	3	77.	222.0	26
	11	81.	.222E-1	.3	4	86.	.608E-2	-.1	12	89.	.309E-1	.6
			-.623E-2	2.4			-.485E+2	2.7			-.210E-1	3.3
6	3	72.	219.0	9	3	84.	234.2	12	3	75.	221.8	23
	11	81.	.221E-1	1.8	4	87.	.632E-2	-.5	12	89.	.311E-1	.7
			-.620E-2	2.7			-.434E+2	2.6			-.215E-1	3.3

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	4	26.	228.5	168	3	13.	233.9	207	3	48.	229.4	209
	3	30.	-.292E+2	0.0	4	14.	.600E-2	0.0	12	52.	.264E-1	0.0
			.549E-2	4.9			-.117E+2	3.4			-.138E-1	5.4
2	4	27.	228.5	29	3	10.	234.0	42	3	47.	229.4	38
	3	29.	-.341E+2	.1	4	12.	.409E-2	-.7	12	55.	.274E-1	.3
			.412E-2	3.8			-.174E+2	2.4			-.160E-1	4.5
3	4	26.	228.6	23	3	14.	233.0	33	3	47.	229.7	33
	3	29.	-.297E+2	.5	4	15.	.613E-2	.6	12	54.	.294E-1	-.6
			.569E-2	2.9			-.115E+2	3.0			-.177E-1	3.6
4	4	23.	228.4	26	3	12.	233.9	29	3	46.	229.4	33
	3	26.	-.292E+2	.5	4	13.	.591E-2	-.5	12	51.	.268E-1	1.1
			.474E-2	3.4			-.108E+2	3.2			-.143E-1	3.3
5	4	24.	228.6	23	3	19.	233.9	35	3	47.	229.5	39
	3	27.	-.278E+2	-.1	4	20.	.699E-2	-.2	12	54.	.288E-1	.2
			.558E-2	3.3			-.139E+2	4.2			-.170E-1	4.2
6	4	26.	228.5	19	3	10.	233.8	31	3	45.	229.4	32
	3	29.	-.292E+2	-.8	4	11.	.534E-2	.3	12	50.	.262E-1	-.7
			.540E-2	3.9			-.120E+2	2.4			-.140E-1	3.7

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	3	12.	232.0	159	3	20.	232.8	190	3	38.	231.7	185
	7	14.	.143E-1	0.0	10	25.	.204E-1	0.0	11	45.	.226E-1	0.0
			-.442E+2	4.1			-.363E-2	3.1			-.556E-2	3.6
2	3	19.	231.7	27	3	20.	232.8	32	3	38.	231.9	37
	7	20.	.139E-1	1.7	10	25.	.199E-1	.3	11	44.	.225E-1	-.9
			-.327E+2	5.5			-.342E-2	2.5			-.535E-2	2.1
3	3	14.	232.0	29	3	20.	232.9	30	3	39.	231.8	31
	7	16.	.162E-1	-.1	10	25.	.205E-1	-.9	11	45.	.222E-1	-1.0
			-.499E+2	2.7			-.354E-2	2.3			-.503E-2	2.1
4	3	14.	232.1	21	3	16.	232.7	28	3	40.	231.7	26
	7	15.	.116E-1	-.7	10	23.	.197E-1	.6	11	46.	.234E-1	-.4
			-.230E+2	4.1			-.395E-2	2.7			-.576E-2	2.2
5	3	11.	231.9	27	3	18.	233.0	32	3	37.	231.6	29
	7	16.	.174E-1	.4	10	24.	.204E-1	-.5	11	43.	.217E-1	.7
			-.657E+2	2.9			-.369E-2	2.1			-.529E-2	2.8
6	3	11.	232.0	22	3	19.	232.0	29	3	41.	231.8	29
	7	16.	.186E-1	.0	10	24.	.202E-1	.2	11	48.	.236E-1	-.5
			-.746E+2	4.0			-.356E-2	2.2			-.582E-2	2.9

ORIGINAL PAGE IS
OF POOR

5.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD:	76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
RUN												
1	8	82.	223.9	92	8	92.	244.5	125	8	85.	226.7	173
	4	84.	.782E+2	0.0	12	92.	.123E+3	0.0	12	88.	.146E+3	0.0
			-.261E+2	13.2			-.550E-2	10.2			-.119E-1	11.7
2	8	81.	223.5	17	8	91.	244.8	24	8	85.	226.3	30
	4	82.	.802E+2	.8	12	92.	.125E+3	.2	12	88.	.150E+3	.8
			-.200E+2	4.6			-.565E-2	2.4			-.126E-1	3.1
3	8	80.	224.1	16	8	92.	245.0	20	8	84.	226.1	27
	4	82.	.780E+2	.5	12	93.	.128E+3	-.5	12	87.	.151E+3	.2
			-.286E+2	3.1			-.622E-2	3.4			-.128E-1	3.2
4	8	80.	223.2	11	8	92.	243.8	24	8	83.	226.1	28
	4	84.	.768E+2	1.1	12	93.	.129E+3	1.4	12	87.	.147E+3	.0
			-.308E+2	2.9			-.660E-2	3.0			-.123E-1	3.7
5	8	82.	224.4	16	8	90.	245.2	22	8	85.	227.0	27
	4	84.	.807E+2	.6	12	91.	.123E+3	.3	12	88.	.143E+3	1.4
			-.216E+2	4.5			-.551E-2	2.6			-.111E-1	3.8
6	8	81.	223.6	8	8	91.	244.8	11	8	85.	226.7	24
	4	84.	.763E+2	1.5	12	92.	.122E+3	-.3	12	88.	.138E+3	.1
			-.303E+2	3.			-.564E-2	3.0			-.103E-1	4.7

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

PERIOD:	76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
RUN												
1	8	47.	239.1	193	8	26.	243.9	214	0	44.	241.3	217
	12	53.	.166E+3	0.0	12	27.	.491E+2	0.0	4	47.	.817E+2	0.0
			-.162E-1	7.9			.543E-2	4.8			-.341E+2	6.2
2	8	47.	239.1	30	8	28.	243.8	47	8	44.	241.3	37
	12	53.	.171E+3	-.7	12	29.	.476E+2	.4	4	48.	.775E+2	-.3
			-.179E-1	4.4			.489E-2	5.0			-.414E+2	4.4
3	8	45.	239.3	27	8	25.	243.8	34	8	43.	241.5	34
	12	51.	.170E+3	1.0	12	27.	.404E+2	.6	4	46.	.776E+2	-.8
			-.179E-1	4.7			.693E-2	2.7			-.368E+2	4.2
4	8	46.	239.0	31	8	22.	243.9	30	0	45.	241.2	35
	12	50.	.161E+3	.1	12	23.	.478E+2	.3	4	48.	.830E+2	.7
			-.149E-1	5.0			.525E-2	2.4			-.365E+2	4.7
5	8	45.	239.4	28	8	23.	244.2	37	8	47.	241.3	40
	12	52.	.177E+3	-.9	12	24.	.369E+2	-1.5	4	48.	.925E+2	.6
			-.187E-1	4.6			.689E-2	2.8			-.209E+2	5.4
6	0	46.	238.9	23	8	24.	243.9	32	0	44.	241.2	32
	12	52.	.170E+3	-.3	12	25.	.467E+2	-.5	4	48.	.766E+2	-.5
			-.168E-1	4.1			.548E-2	2.6			-.443E+2	4.4

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

PERIOD:	76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
RUN												
1	8	34.	243.3	159	8	8.	243.9	191	8	41.	243.3	191
	10	37.	.136E+3	0.0	10	16.	.137E+3	0.0	4	44.	.969E+2	0.0
			-.414E-2	4.5			-.573E-2	3.5			-.293E+2	4.6
2	8	44.	243.1	27	8	7.	243.9	33	8	38.	243.2	38
	10	48.	.157E+3	1.0	10	16.	.141E+3	.1	4	39.	.963E+2	.3
			-.479E-2	5.1			-.636E-2	2.3			-.213E+2	3.5
3	8	38.	243.3	28	8	6.	244.1	30	8	46.	243.2	31
	10	43.	.157E+3	-.3	10	13.	.124E+3	-.9	4	48.	.108E+3	-.1
			-.568E-2	4.0			-.544E-2	2.6			-.274E+2	3.6
4	0	35.	243.4	21	8	8.	243.8	29	8	39.	243.2	27
	10	37.	.131E+3	-.9	10	16.	.145E+3	.6	4	42.	.904E+2	-.0
			-.397E-2	3.6			-.624E-2	2.9			-.320E+2	2.9
5	8	35.	243.3	26	8	6.	244.3	32	8	39.	243.2	31
	10	39.	.154E+3	-.6	10	15.	.136E+3	-1.8	4	43.	.854E+2	.6
			-.818E-2	3.5			-.594E-2	2.5			-.391E+2	3.3
6	8	34.	243.2	22	8	9.	243.8	29	8	42.	243.5	30
	10	38.	.153E+3	.8	10	16.	.134E+3	.6	4	45.	.987E+2	-1.2
			-.522E-2	3.4			-.531E-2	3.0			-.310E+2	3.3

2.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	7	87.	234.2	95	7	91.	262.9	122	7	88.	238.3	172
	5	90.	.104E+3	0.0	8	93.	.289E+2	0.0	5	91.	.121E+3	0.0
			.147E+2	16.6			.836E+2	12.8			.113E+2	14.4
2	7	86.	233.8	18	7	91.	263.0	23	7	89.	238.5	30
	5	90.	.103E+3	1.0	8	93.	.219E+2	1.0	5	91.	.123E+3	.2
			.170E+2	4.8			.906E+2	3.1			.941E+1	4.9
3	7	89.	234.0	16	7	91.	263.4	20	7	88.	237.8	27
	5	92.	.105E+3	1.7	8	93.	.358E+2	.3	5	90.	.121E+3	1.2
			.158E+2	7.9			.779E+2	3.8			.101E+2	4.4
4	7	86.	233.7	12	7	91.	261.9	24	7	87.	237.7	28
	5	88.	.104E+3	.1	8	94.	.332E+2	1.6	5	92.	.118E+3	.7
			.131E+2	5.1			.794E+2	3.4			.161E+2	5.7
5	7	89.	235.1	16	7	90.	263.7	21	7	89.	239.2	24
	5	92.	.103E+3	-2.8	8	92.	.332E+2	.3	5	92.	.121E+3	.1
			.181E+2	7.6			.787E+2	3.2			.118E+2	5.7
6	7	86.	233.4	10	7	90.	263.3	10	7	88.	238.5	25
	5	88.	.105E+3	.6	8	93.	.264E+2	-2.2	5	91.	.119E+3	.5
			.965E+1	3.4			.834E+2	3.0			.130E+2	5.0

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	7	49.	258.1	194	7	36.	261.4	211	7	43.	258.5	216
	12	52.	.159E+3	0.0	13	37.	.170E+2	0.0	5	45.	.119E+3	0.0
			-.116E-1	7.3			.634E-2	5.0			.161E+2	7.1
2	7	50.	257.9	29	7	36.	261.6	45	7	44.	258.4	37
	12	52.	.150E+3	-.2	13	39.	-.181E+2	-.6	5	45.	.121E+3	-.3
			-.978E-2	5.1			.875E-2	4.1			.130E+2	5.4
3	7	47.	258.3	28	7	39.	261.4	32	7	47.	258.6	34
	12	51.	.172E+3	-.0	13	40.	.116E+2	.5	5	48.	.122E+3	.3
			-.150E-1	4.7			.673E-2	5.0			.135E+2	6.4
4	7	47.	258.0	31	7	37.	261.4	30	7	41.	258.6	35
	12	51.	.165E+3	-.1	13	40.	-.129E+2	.6	5	43.	.116E+3	-.7
			-.135E-1	4.9			.867E-2	4.4			.171E+2	5.0
5	7	47.	258.3	29	7	35.	261.7	37	7	40.	259.0	40
	12	51.	.165E+3	-.6	13	36.	.121E+2	-.9	5	43.	.109E+3	-2.1
			-.132E-1	4.8			.651E-2	4.1			.109E+2	5.0
6	7	46.	258.0	23	7	33.	261.3	31	7	46.	258.1	32
	12	49.	.153E+3	.1	13	34.	.271E+2	.6	5	48.	.120E+3	.2
			-.107E-1	4.1			.529E-2	3.5			.196E+2	5.7

STATIONS: 91162 78861 78001 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	7	39.	262.6	158	7	22.	261.0	188	7	33.	262.3	189
	8	46.	.214E+2	0.0	5	23.	.732E+2	0.0	11	35.	.788E+2	0.0
			.934E+2	4.8			.539E+1	3.5			.435E-2	4.8
2	7	37.	262.5	27	7	23.	261.0	33	7	32.	262.6	38
	8	44.	.177E+2	.1	5	23.	.818E+2	.3	11	34.	.786E+2	-1.0
			.101E+3	3.0			-.706E+0	3.3			.410E-2	4.1
3	7	39.	262.7	27	7	22.	260.9	30	7	31.	262.4	31
	8	46.	.161E+2	-.5	5	22.	.765E+2	.0	11	32.	.781E+2	-.5
			.100E+3	3.0			.265E+1	3.2			.407E-2	3.2
4	7	42.	262.6	21	7	20.	260.9	29	7	35.	262.3	27
	8	48.	.307E+2	.2	5	20.	.719E+2	-.2	11	37.	.760E+2	-.3
			.864E+2	3.2			.357E+1	2.9			.500E-2	3.7
5	7	32.	262.7	25	7	26.	261.1	32	7	38.	262.4	31
	8	40.	.129E+2	-.9	5	26.	.855E+2	-.8	11	42.	.691E+2	.0
			.921E+2	3.2			.317E+1	2.7			.606E-2	5.2
6	7	34.	262.5	22	7	22.	261.0	29	7	31.	262.3	30
	8	42.	.108E+1	.9	5	22.	.745E+2	.7	11	33.	.690E+2	-.1
			.108E+3	3.1			.480E+1	3.0			.510E-2	2.9

1.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	6	87.	242.4	91	6	88.	270.8	119	6	84.	249.2	173
	5	90.	.106E+3	0.0	5	89.	.120E+3	0.0	9	86.	.133E+3	0.0
			.159E+2	16.3			-.163E+2	10.7			.250E+2	14.2
2	6	87.	242.4	17	6	87.	271.1	23	6	86.	249.2	30
	5	91.	.103E+3	-.2	5	88.	.120E+3	.1	9	86.	.139E+3	1.6
			.199E+2	6.5			-.150E+2	2.7			.139E+2	5.7
3	6	86.	242.2	14	6	88.	271.4	19	6	83.	248.9	29
	5	89.	.107E+3	1.5	5	89.	.120E+3	-.2	9	84.	.132E+3	-.5
			.163E+2	5.6			-.171E+2	3.8			.226E+2	4.4
4	6	88.	242.2	12	6	88.	270.3	23	6	85.	249.0	28
	5	90.	.106E+3	-2.8	5	89.	.119E+3	-.1	9	87.	.131E+3	-1.5
			.167E+2	7.3			-.143E+2	3.4			.304E+2	6.4
5	6	89.	243.2	16	6	87.	271.5	21	6	84.	250.1	24
	5	92.	.103E+3	-3.2	5	88.	.121E+3	-1.0	9	86.	.132E+3	-1.4
			.194E+2	6.8			-.189E+2	3.5			.262E+2	4.4
6	6	87.	241.7	8	6	87.	271.0	10	6	85.	249.4	25
	5	88.	.100E+3	2.0	5	88.	.116E+3	.1	9	86.	.136E+3	.4
			.117E+2	3.4			-.144E+2	3.2			.223E+2	5.1

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	6	20.	265.3	194	6	25.	266.3	210	5	29.	264.4	212
	11	24.	.147E+3	0.0	5	26.	.102E+3	0.0	6	34.	.326E+2	0.0
			-.524E-2	6.1			-.156E+2	4.7			.612E+2	6.8
2	6	18.	265.0	29	6	29.	266.4	44	5	29.	264.4	36
	11	21.	.131E+3	1.2	5	29.	.101E+3	-.5	6	34.	.312E+2	.2
			-.441E-2	5.2			-.114E+2	4.6			.593E+2	5.5
3	6	18.	265.2	28	6	26.	266.2	32	5	30.	264.6	34
	11	24.	.156E+3	.6	5	27.	.106E+3	.7	6	33.	.370E+2	-1.2
			-.614E-2	5.9			-.161E+2	3.2			.501E+2	4.9
4	6	23.	265.2	31	6	24.	266.3	30	5	35.	264.3	33
	11	26.	.147E+3	.7	5	26.	.109E+3	.7	6	38.	.400E+2	.6
			-.494E-2	6.0			-.186E+2	3.2			.498E+2	7.0
5	6	21.	265.7	29	6	28.	266.2	37	5	26.	264.2	40
	11	27.	.173E+3	-2.0	5	29.	.100E+3	.1	6	31.	.279E+2	1.2
			-.715E-2	4.7			-.119E+2	4.5			.688E+2	4.8
6	6	21.	265.4	23	6	23.	266.5	30	5	28.	264.4	30
	11	24.	.130E+3	.0	5	24.	.949E+2	-1.9	6	34.	.278E+2	-1.5
			-.461E-2	5.1			-.141E+2	4.0			.686E+2	6.2

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	6	46.	267.7	156	6	22.	265.4	185	6	31.	268.0	185
	7	46.	.124E+3	0.0	7	26.	.380E+2	0.0	5	32.	.922E+2	0.0
			.220E+2	5.0			.576E+2	3.9			.137E+2	4.4
2	6	42.	267.9	27	6	23.	265.5	33	6	29.	268.1	38
	7	42.	.117E+3	-1.3	7	26.	.480E+2	-.5	5	31.	.847E+2	-.5
			.278E+2	2.7			.477E+2	3.1			.142E+2	3.7
3	6	49.	267.6	27	6	23.	265.4	29	6	28.	268.0	30
	7	49.	.137E+3	.1	7	25.	.443E+2	-.3	5	29.	.884E+2	-.2
			.159E+2	4.3			.526E+2	3.0			.131E+2	2.8
4	6	46.	267.8	21	6	21.	265.5	29	6	32.	267.9	27
	7	47.	.132E+3	-.6	7	24.	.349E+2	-1.3	5	33.	.938E+2	1.3
			.170E+2	3.0			.580E+2	3.2			.132E+2	4.0
5	6	47.	267.7	25	6	24.	265.5	32	6	32.	268.2	31
	7	48.	.119E+3	.1	7	26.	.508E+2	-.2	5	32.	.110E+3	-.2
			.321E+2	4.1			.447E+2	3.0			.702E+1	4.1
6	6	45.	267.8	22	6	23.	265.5	29	6	29.	268.0	29
	7	45.	.125E+3	.3	7	25.	.418E+2	.2	5	30.	.876E+2	-.0
			.249E+2	3.2			.535E+2	2.8			.133E+2	3.1

ORIGINAL PAGE IS
OF POOR QUALITY

.4 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/208				77/209 - 78/120			
1	6	48.	248.6	80	6	65.	264.3	100	6	34.	255.4	165
	4	61.	.728E+2	0.0	7	71.	.128E+3	0.0	4	50.	.738E+2	0.0
			.526E+2	12.7			-.663E+2	7.1			.409E+2	10.5
2	6	41.	248.6	14	6	67.	264.4	19	6	36.	255.8	29
	4	60.	.690E+2	1.2	7	73.	.123E+3	.5	4	52.	.749E+2	1.2
			.604E+2	6.0			-.613E+2	4.2			.392E+2	7.9
3	6	42.	248.5	13	6	65.	264.6	15	6	33.	255.2	26
	4	59.	.711E+2	1.9	7	71.	.129E+3	-1.3	4	49.	.727E+2	1.2
			.621E+2	4.4			-.686E+2	3.5			.389E+2	6.7
4	6	47.	248.1	11	6	65.	266.0	17	6	31.	255.6	26
	4	58.	.698E+2	1.0	7	70.	.121E+3	.1	4	48.	.700E+2	-1.4
			.446E+2	9.4			-.603E+2	3.2			.402E+2	6.4
5	6	51.	248.0	15	6	68.	266.3	17	6	34.	256.0	23
	4	65.	.769E+2	2.2	7	75.	.139E+3	.1	4	51.	.721E+2	-.8
			.553E+2	6.8			-.749E+2	4.6			.419E+2	7.0
6	6	45.	248.3	6	6	65.	266.5	10	6	39.	255.7	23
	4	57.	.695E+2	.5	7	72.	.127E+3	.1	4	56.	.784E+2	-1.5
			.485E+2	4.9			-.669E+2	4.7			.431E+2	9.1

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/208				77/209 - 78/120			
1	4	20.	259.5	187	4	19.	258.2	206	5	32.	258.1	200
	13	27.	.862E+2	0.0	7	21.	.713E+2	0.0	4	39.	.384E+2	0.0
			.388E-2	6.9			.251E+2	5.0			.499E+2	6.4
2	4	21.	259.5	29	4	20.	258.2	43	5	31.	257.7	35
	13	25.	.796E+2	-.4	7	23.	.732E+2	.6	4	39.	.373E+2	1.7
			.313E-2	5.5			.280E+2	4.2			.513E+2	4.4
3	4	18.	259.2	28	4	20.	258.2	31	5	31.	258.2	30
	13	23.	.834E+2	.4	7	22.	.729E+2	-.4	4	38.	.387E+2	-1.0
			.357E-2	3.6			.269E+2	5.1			.497E+2	4.1
4	4	17.	259.4	30	4	17.	258.5	29	5	31.	257.8	33
	13	23.	.789E+2	.5	7	20.	.690E+2	-2.0	4	38.	.379E+2	.9
			.356E-2	5.9			.293E+2	3.5			.474E+2	4.9
5	4	17.	259.5	28	4	16.	258.0	36	5	30.	257.7	40
	13	23.	.786E+2	-.1	7	18.	.667E+2	.4	4	37.	.390E+2	1.3
			.353E-2	5.4			.241E+2	3.9			.508E+2	4.9
6	4	26.	259.4	23	4	17.	258.0	28	5	30.	257.9	28
	13	33.	.922E+2	1.5	7	19.	.658E+2	1.7	4	39.	.376E+2	.8
			.396E-2	7.6			.295E+2	4.0			.556E+2	5.4

STATIONS: 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/208				77/209 - 78/120			
1	4	15.	260.3	141	4	7.	257.1	167	4	19.	260.8	160
	5	17.	.446E+2	0.0	5	11.	.211E+2	0.0	8	21.	.466E+2	0.0
			.141E+2	4.9			.226E+2	4.7			-.250E+2	4.4
2	4	15.	260.5	26	4	6.	256.8	31	4	21.	260.8	34
	5	17.	.508E+2	-1.3	5	10.	.144E+2	1.4	8	22.	.491E+2	-.2
			.117E+2	5.6			.230E+2	4.5			-.234E+2	4.0
3	4	14.	260.5	25	4	6.	257.0	27	4	20.	260.8	27
	5	16.	.460E+2	-1.3	5	10.	.161E+2	.8	8	21.	.516E+2	-.0
			.113E+2	4.8			.232E+2	4.7			-.173E+2	3.3
4	4	15.	260.5	19	4	6.	257.1	27	4	22.	260.9	25
	5	16.	.456E+2	-1.2	5	9.	.153E+2	-.3	8	23.	.544E+2	-.4
			.120E+2	4.7			.229E+2	4.4			-.221E+2	3.7
5	4	13.	260.0	24	4	6.	257.2	28	4	20.	260.7	29
	5	18.	.312E+2	1.9	5	10.	.867E+1	-.6	8	21.	.459E+2	.7
			.216E+2	5.0			.252E+2	4.1			-.251E+2	4.3
6	4	16.	260.3	20	4	7.	257.1	27	4	20.	260.8	27
	5	19.	.435E+2	-.4	5	11.	.165E+2	.4	8	21.	.477E+2	-.1
			.169E+2	5.6			.233E+2	4.7			-.219E+2	4.2

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE IS
OF POOR QUALITY

10.0 MB TEMPERATURE

STATIONS 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD 72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	3 61. 221.1 68 2 75. .148E-2 0.0 .104E+1 7.3	3 88. 234.7 0 8 89. .440E-2 0.0 .349E+2 6.9	3 86. 223.3 0 4 89. .915E-2 0.0 -.212E+2 10.6	3 90. 229.6 0 4 92. .786E-2 0.0 -.220E+2 9.7
2	3 60. 221.2 13 2 75. .126E-2 -.3 .109E+1 2.8	3 88. 235.0 18 8 89. .338E-2 1.0 .439E+2 2.4	3 86. 222.8 16 4 89. .842E-2 1.0 -.237E+2 3.9	3 90. 229.8 33 4 93. .779E-2 .3 -.246E+2 3.6
3	3 60. 220.8 34 2 74. .184E-2 .1 .987E+0 3.7	3 87. 234.4 39 8 88. .294E-2 1.1 .465E+2 1.7	3 86. 223.2 18 4 89. .917E-2 -.1 -.208E+2 3.2	3 90. 229.3 27 4 93. .787E-2 -.5 -.257E+2 2.5
4	3 62. 220.8 8 2 75. .223E-2 2.1 .990E+0 1.6	3 88. 234.7 15 8 89. .455E-2 .1 .335E+2 2.1	3 86. 223.0 13 4 89. .916E-2 -.5 -.226E+2 2.7	3 90. 230.0 25 4 93. .780E-2 -1.0 -.221E+2 2.2
5	3 68. 220.8 6 2 85. .155E-2 -2.3 .115E+1 8.5	3 91. 234.4 11 8 91. .743E-2 -.9 .128E+2 3.9	3 86. 223.7 12 4 88. .908E-2 -1.0 -.213E+2 3.0	3 90. 229.5 16 4 92. .793E-2 .0 -.209E+2 2.5
6	3 57. 221.1 9 2 73. .863E-3 -.2 .104E+1 4.3	3 88. 234.5 20 8 89. .337E-2 .1 .413E+2 2.2	3 88. 223.1 18 4 89. .993E-2 .8 -.173E+2 2.9	3 89. 229.2 37 4 91. .796E-2 -.7 -.169E+2 2.5

STATIONS 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD 72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	2 79. 230.8 118 6 81. .995E+0 0.0 .307E+2 7.8	8 38. 234.4 0 3 38. .893E+2 0.0 -.233E-2 3.2	2 55. 229.4 293 3 57. .704E+0 0.0 .274E-2 4.0	3 66. 230.8 0 4 72. .916E-2 0.0 -.345E+2 4.9
2	2 79. 230.6 19 6 82. .100E+1 .2 .303E+2 3.1	8 34. 234.6 45 3 34. .906E+2 -.1 -.307E-2 1.9	2 59. 229.4 54 3 61. .684E+0 -.1 .296E-2 3.2	3 69. 230.7 46 4 74. .950E-2 .8 -.333E+2 3.2
3	2 80. 231.2 20 8 82. .977E+0 -1.0 .306E+2 3.6	8 37. 234.4 37 3 37. .589E+2 -.2 .173E-2 2.3	2 52. 229.4 47 3 53. .698E+0 -.0 .203E-2 3.1	3 67. 230.7 49 4 72. .974E-2 .4 -.335E+2 2.5
4	2 80. 230.6 21 8 82. .105E+1 .4 .283E+2 3.7	8 35. 234.6 36 3 36. .102E+3 -.9 -.458E-2 1.9	2 60. 229.7 51 3 62. .669E+0 1.0 .344E-2 3.2	3 66. 230.8 44 4 71. .935E-2 -.6 -.321E+2 2.1
5	2 78. 231.1 16 8 80. .980E+0 -.3 .299E+2 2.8	8 41. 234.5 28 3 41. .671E+2 -.5 -.181E-2 3.2	2 57. 229.4 37 3 58. .711E+0 .7 .260E-2 3.1	3 67. 230.7 35 4 73. .907E-2 .2 -.374E+2 2.7
6	2 78. 230.9 24 8 79. .103E+1 -1.3 .215E+2 2.2	8 40. 234.3 47 3 40. .727E+2 .4 -.493E-3 3.1	2 56. 229.4 44 3 58. .687E+0 -.2 .276E-2 2.7	3 65. 230.6 46 4 71. .885E-2 -.4 -.350E+2 2.1

STATIONS 91162 78861 78801 91366 61902 (LOW LATITUDES)

RUN	PERIOD 72/347 - 73/115	73/116 - 73/288	73/289 - 74/115	74/116 - 74/360
1	3 54. 232.7 0 8 55. .167E-1 0.0 -.371E+2 4.3	8 36. 233.4 0 3 34. .580E+2 0.0 .783E-2 3.1	3 32. 233.0 0 4 33. .111E-1 0.0 -.147E+2 3.5	3 19. 233.3 0 4 20. .774E-2 0.0 -.254E+2 3.5
2	3 51. 232.4 21 8 52. .180E-1 -.0 -.511E+2 3.0	8 36. 233.3 30 3 39. .471E+2 .5 .935E-2 2.7	3 31. 232.9 36 4 33. .100E-1 .1 -.192E+2 3.2	3 19. 233.3 39 4 20. .738E-2 -.3 -.225E+2 3.6
3	3 55. 232.6 17 8 55. .154E-1 .5 -.267E+2 3.1	8 38. 233.3 29 3 41. .494E+2 .4 .965E-2 3.0	3 34. 233.1 37 4 34. .120E-1 -.8 -.129E+2 2.7	3 17. 233.3 35 4 19. .719E-2 -.3 -.297E+2 2.5
4	3 55. 232.4 17 8 57. .196E-1 -.1 -.561E+2 3.6	8 36. 233.5 25 3 38. .559E+2 -.2 .813E-2 2.1	3 33. 232.9 34 4 35. .106E-1 .8 -.169E+2 3.4	3 17. 233.3 30 4 19. .777E-2 -.4 -.236E+2 2.5
5	3 55. 232.8 9 8 56. .173E-1 -.7 -.385E+2 2.8	8 37. 233.4 19 3 35. .518E+2 -.0 .888E-2 1.9	3 34. 233.0 20 4 35. .111E-1 -.1 -.187E+2 3.2	3 18. 233.2 22 4 20. .807E-2 -.2 -.333E+2 2.6
6	3 51. 232.8 13 8 51. .165E-1 .8 -.380E+2 2.1	8 34. 233.4 29 3 36. .596E+2 -.4 .742E-2 2.9	3 30. 233.1 39 4 31. .103E-1 -.6 -.178E+2 5.1	3 21. 233.2 37 4 22. .829E-2 .3 -.233E+2 3.4

10.0 MB TEMPERATURE

STATIONS: 04202 70192 72912 74124 (HIGH LATITUDES)

RUN	PERIOD: 75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	2	89.	222.4	80	2	91.	230.6	61	2	9(	222.3	100	2	92.	230.9	68
	4	90.	.959E+0	0.0	7	92.	.643E+0	0.0	7	99.	.724E+0	0.0	7	94.	.635E+0	0.0
			-.159E+2	8.4			.164E+2	7.5			.369E+2	9.2			.306E+2	8.9
2	2	89.	222.8	10	2	93.	230.3	8	2	91.	221.7	21	2	92.	230.7	5
	4	90.	.949E+0	-1.4	7	94.	.891E+0	-1.3	7	99.	.732E+0	1.6	7	94.	.619E+0	.4
			-.140E+2	3.3			.164E+2	2.6			.341E+2	2.9			.319E+2	1.2
3	2	88.	222.3	17	2	91.	230.0	8	2	88.	222.8	19	2	92.	231.2	18
	4	90.	.850E+0	-.8	7	92.	.643E+0	-.2	7	97.	.739E+0	-.2	7	94.	.622E+0	1.0
			-.165E+2	3.1			.193E+2	2.0			.377E+2	3.4			.356E+2	2.2
4	2	88.	222.2	13	2	92.	230.6	14	2	89.	221.9	14	2	92.	230.5	12
	4	89.	.921E+0	-.4	7	93.	.903E+0	-.7	7	99.	.735E+0	-.6	7	93.	.662E+0	1.4
			-.141E+2	2.2			.131E+2	2.5			.370E+2	2.6			.300E+2	1.6
5	2	89.	222.6	12	2	91.	230.5	9	2	92.	222.8	20	2	91.	231.5	13
	4	90.	.903E+0	1.2	7	92.	.803E+0	.5	7	99.	.739E+0	.4	7	93.	.609E+0	.3
			-.154E+2	3.0			.214E+2	1.6			.323E+2	3.6			.342E+2	2.1
6	2	88.	222.6	11	2	93.	230.0	4	2	90.	221.6	13	2	93.	231.0	9
	4	90.	.838E+0	-.5	7	93.	.873E+0	2.4	7	99.	.725E+0	-.1	7	94.	.630E+0	-.1
			-.164E+2	3.3			.150E+2	3.1			.370E+2	3.2			.321E+2	2.8

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	2	72.	227.9	175	2	17.	233.8	92	2	66.	230.1	166	2	26.	234.0	107
	8	75.	.759E+0	0.0	4	22.	.540E+0	0.0	4	68.	.963E+0	0.0	3	30.	.521E+0	0.0
			.247E+2	4.4			-.334E+2	2.6			-.253E+2	4.7			.481E-2	3.2
2	2	72.	228.1	27	2	14.	234.1	16	2	69.	230.0	25	2	28.	234.1	16
	8	75.	.766E+0	-.7	4	18.	.505E+0	-1.5	4	71.	.101E+1	-.1	3	35.	.464E+0	.4
			.241E+2	1.5			-.296E+2	1.2			-.238E+2	3.0			.596E-2	3.2
3	2	70.	228.2	29	2	13.	234.0	16	2	62.	230.0	33	2	25.	234.1	16
	8	74.	.740E+0	-1.1	4	18.	.494E+0	-1.6	4	64.	.101E+1	-.4	3	27.	.623E+0	-.5
			.246E+2	1.6			-.326E+2	1.1			-.222E+2	2.4			.262E-2	2.7
4	2	72.	228.1	33	2	19.	233.8	13	2	65.	229.8	25	2	33.	233.7	17
	8	75.	.742E+0	-.2	4	25.	.567E+0	.1	4	67.	.916E+0	1.3	3	34.	.716E+0	1.8
			.249E+2	2.1			-.350E+2	2.8			-.259E+2	2.9			.332E-2	3.1
5	2	73.	228.1	29	2	17.	233.8	14	2	66.	230.4	24	2	25.	233.9	15
	8	74.	.758E+0	-.3	4	21.	.575E+0	-.5	4	68.	.961E+0	.2	3	30.	.479E+0	.3
			.212E+2	2.3			-.279E+2	2.0			-.288E+2	3.1			.553E-2	2.2
6	2	71.	228.0	20	2	16.	233.9	9	2	66.	230.0	26	2	24.	234.1	13
	8	75.	.707E+0	-.8	4	20.	.532E+0	-.9	4	69.	.948E+0	-.2	3	29.	.506E+0	-.6
			.266E+2	2.3			-.272E+2	2.5			-.253E+2	3.0			.497E-2	1.3

STATIONS: 91162 78961 78801 91366 61902 (LOW LATITUDES)

PERIOD: 75/001 - 75/105 75/106 - 75/288 75/289 - 76/106 76/107 - 76/289

(Low latitudes same as page B-7)

2.0 MB TEMPERATURE

STATION(S) 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	11	87.	237.2	95	7	95.	263.1	60	7	84.	239.6	112	7	95.	258.7	69
	7	88.	.779E-2	0.0	4	96.	.139E+3	0.0	4	85.	.107E+3	0.0	4	96.	.962E+2	0.0
			.687E+2	13.5			.393E+2	12.0			-.867E+1	12.7			-.373E+2	12.6
2	11	89.	238.0	10	7	95.	263.0	8	7	85.	239.9	37	7	96.	258.6	8
	7	90.	.782E-2	-2.8	4	96.	.136E+3	-1.2	4	88.	.114E+2	-.3	4	96.	.995E+2	-2.0
			.589E+2	6.5			.324E+2	2.3			-.366E+1	5.6			-.351E+2	1.5
3	11	90.	237.8	17	7	95.	262.8	8	7	82.	240.3	21	7	95.	259.4	17
	7	91.	.953E-2	-1.6	4	96.	.139E+3	-.3	4	83.	.104E+3	-2.2	4	96.	.952E+2	-.3
			.504E+2	5.7			.375E+2	2.0			-.723E+1	6.0			-.476E+2	3.0
4	11	85.	237.2	17	7	95.	262.0	12	7	83.	239.6	17	7	95.	258.3	13
	7	87.	.459E-2	.8	4	96.	.130E+3	.3	4	83.	.106E+3	.7	4	96.	.983E+2	1.5
			.657E+2	4.0			.177E+2	2.8			-.100E+2	4.3			-.361E+2	2.5
5	11	86.	238.5	14	7	94.	263.1	8	7	83.	240.2	22	7	94.	259.1	13
	7	87.	.751E-2	-.2	4	95.	.139E+3	.7	4	84.	.107E+3	-.4	4	95.	.954E+2	-.6
			.647E+2	3.4			.381E+2	1.9			-.653E+1	4.3			-.416E+2	2.8
6	11	87.	237.4	12	7	96.	262.4	5	7	83.	238.5	16	7	96.	259.0	9
	7	88.	.727E-2	-.5	4	96.	.139E+3	-1.5	4	84.	.106E+3	.5	4	96.	.103E+3	.1
			.680E+2	3.3			.395E+2	3.6			-.443E+1	5.0			-.291E+2	2.9

STATION(S) 72402 72391 72269 74794 (MID LATITUDES)

RUN	75/001 - 75/105				75/106 - 75/288				75/289 - 76/106				76/107 - 76/289			
1	5	49.	265.0	192	7	39.	263.3	100	7	58.	254.3	174	13	39.	262.2	132
	7	60.	.369E+2	0.0	10	45.	-.412E+2	0.0	2	64.	.153E+3	0.0	7	39.	.945E-2	0.0
			.824E+2	7.1			.104E-1	4.6			-.600E+0	8.3			-.314E+2	4.8
2	5	49.	264.7	31	7	49.	263.6	19	7	58.	254.2	28	13	40.	262.3	18
	7	59.	.205E+2	1.2	10	54.	-.507E+2	-1.9	2	65.	.156E+3	-.1	7	40.	.887E-2	.2
			.769E+2	3.9			.120E-1	4.2			-.660E+0	4.7			-.194E+2	3.1
3	5	50.	264.8	32	7	47.	263.4	18	7	57.	254.4	32	13	41.	262.1	20
	7	62.	.360E+2	-.1	10	55.	-.620E+2	-1.4	2	63.	.160E+3	-.4	7	42.	.116E-1	1.7
			.653E+2	4.5			.126E-1	4.9			-.674E+0	3.9			-.266E+2	3.4
4	5	51.	265.0	34	7	43.	262.7	16	7	59.	254.3	24	13	39.	262.2	23
	7	62.	.378E+2	1.4	10	49.	-.540E+2	2.1	2	67.	.160E+3	.9	7	39.	.647E-2	-.0
			.900E+2	4.0			.114E-1	3.7			-.713E+0	6.0			-.173E+2	3.4
5	5	49.	265.2	32	7	43.	263.0	14	7	60.	254.7	24	13	48.	262.5	23
	7	58.	.386E+2	-.2	10	50.	-.743E-2	.4	2	65.	.152E+3	-1.1	7	48.	.921E-2	-2.3
			.734E+2	5.5			.129E-1	4.5			-.599E+0	5.9			-.166E+2	4.4
6	5	50.	265.0	22	7	41.	263.5	9	7	58.	254.0	28	13	46.	262.2	15
	7	59.	.628E+2	-.2	10	47.	-.432E+2	-.9	2	65.	.146E+3	.6	7	46.	.101E-1	-.2
			.771E+2	4.4			.106E-1	5.5			-.612E+0	5.4			-.322E+2	4.9

STATION(S) 91162 76841 76801 91366 61902 (LOW LATITUDES)

PERIOD: 75/001 - 75/105 75/106 - 75/288 75/289 - 76/106 76/107 - 76/289

(Low latitudes same as page B-9)

10.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

PERIOD:	76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
RUN												
1	2	84.	219.3	90	2	91.	233.9	126	2	82.	221.9	169
	9	87.	.647E+0	0.0	9	92.	.776E+0	0.0	5	89.	.125E+1	0.0
			.482E+2	10.1			.330E+2	8.0			.155E+2	9.1
2	2	87.	218.9	18	2	91.	234.2	24	2	81.	221.3	29
	9	89.	.716E+0	-1.0	9	92.	.782E+0	-.5	5	86.	.120E+1	.0
			.406E+2	4.7			.324E+2	2.4			.122E+2	3.1
3	2	82.	219.8	15	2	92.	234.3	20	2	79.	221.4	27
	9	84.	.595E+0	-.4	9	92.	.840E+0	-.1	5	86.	.122E+1	-.3
			.816E+2	2.6			.285E+2	3.1			.141E+2	2.7
4	2	90.	218.9	11	2	92.	233.3	24	2	80.	221.4	20
	9	90.	.899E+0	1.3	9	92.	.785E+0	1.1	5	90.	.120E+1	.9
			.218E+2	6.6			.317E+2	2.7			.185E+2	3.5
5	2	84.	219.7	14	2	89.	234.4	23	2	81.	222.0	26
	9	86.	.679E+0	-1.3	9	90.	.789E+0	.2	5	88.	.125E+1	1.0
			.459E+2	2.7			.302E+2	1.9			.148E+2	3.6
6	2	84.	219.0	9	2	90.	234.2	12	2	86.	221.8	23
	9	86.	.633E+0	.4	9	91.	.759E+0	-.6	5	92.	.125E+1	.5
			.486E+2	1.4			.334E+2	2.0			.135E+2	4.8

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

PERIOD:	76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
RUN												
1	2	52.	228.5	160	2	21.	233.9	205	2	66.	229.4	209
	3	52.	.807E+0	0.0	3	21.	.650E+0	0.0	3	67.	.871E+0	0.0
			.340E-3	4.9			.189E-2	3.4			.363E-2	5.4
2	2	46.	228.5	29	2	20.	234.0	40	2	70.	229.4	38
	3	46.	.764E+0	-.2	3	20.	.772E+0	-.7	3	71.	.903E+0	-.5
			.721E-3	2.0			.758E-3	2.4			.269E-2	4.0
3	2	51.	228.6	23	2	19.	233.8	32	2	67.	229.7	33
	3	51.	.818E+0	-.5	3	20.	.578E+0	.4	3	67.	.895E+0	-.2
			.151E-3	2.4			.245E-2	2.7			.335E-2	2.9
4	2	50.	228.4	26	2	18.	233.9	29	2	66.	229.4	33
	3	50.	.825E+0	.8	3	19.	.582E+0	-.3	3	66.	.923E+0	1.2
			-.634E-3	3.0			.221E-2	2.9			.312E-2	2.6
5	2	49.	228.6	23	2	22.	234.0	35	2	66.	229.5	39
	3	49.	.773E+0	-.6	3	24.	.551E+0	-.1	3	67.	.864E+0	.1
			.390E-3	2.2			.361E-2	3.8			.386E-2	3.3
6	2	53.	228.5	19	2	21.	233.8	30	2	64.	229.4	32
	3	53.	.850E+0	-.9	3	22.	.804E+0	.6	3	65.	.875E+0	-.4
			-.231E-3	3.6			.404E-3	2.8			.309E-2	2.7

STATIONS: 91162 70861 70801 91366 61902 (LOW LATITUDES)

PERIOD: 76/290 - 77/105 77/106 - 77/288 77/289 - 78/120

(Low latitudes same as page B-12)

5.0 MB TEMPERATURE

STATIONS: 04202 70192 72913 74124 (HIGH LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	8	82.	223.9	92	8	92.	244.5	124	8	85.	226.7	173
	4	84.	.783E+2	0.0	2	92.	.626E+2	0.0	12	88.	.146E+3	0.0
			-.261E+2	13.2			.393E+0	10.3			-.119E-1	11.7
2	8	81.	223.5	17	8	92.	244.8	24	8	95.	226.3	30
	4	82.	.802E+2	.8	2	92.	.601E+2	.0	12	88.	.150E+3	.8
			-.200E+2	4.6			.459E+0	2.6			-.126E-1	3.1
3	8	80.	224.1	16	8	92.	245.0	20	8	84.	226.1	27
	4	82.	.780E+2	.5	2	93.	.624E+2	-.5	12	87.	.151E+3	.2
			-.286E+2	3.1			.400E+0	3.2			-.128E-1	3.2
4	8	80.	223.2	11	8	92.	243.8	24	8	83.	226.1	28
	4	84.	.768E+2	1.1	2	93.	.586E+2	1.1	12	87.	.147E+3	.0
			-.308E+2	2.9			.449E+0	3.0			-.123E-1	3.7
5	8	82.	224.4	16	8	91.	245.2	22	8	85.	227.0	27
	4	84.	.807E+2	.6	2	91.	.637E+2	.3	12	88.	.143E+3	1.4
			-.216E+2	4.5			.367E+0	2.5			-.111E-1	3.8
6	8	81.	223.6	8	8	91.	244.9	11	8	85.	226.7	24
	4	84.	.763E+2	1.9	2	92.	.610E+2	-.5	12	88.	.130E+3	.1
			-.303E+2	3.1			.384E+0	2.9			-.103E-1	4.7

STATIONS: 72402 72391 72269 74794 (MID LATITUDES)

RUN	PERIOD: 76/290 - 77/105				77/106 - 77/288				77/289 - 78/120			
1	8	47.	239.1	193	8	26.	243.9	214	8	44.	241.3	217
	12	53.	.166E+3	0.0	12	27.	.491E+2	0.0	4	47.	.817E+2	0.0
			-.162E-1	7.9			.543E-2	4.8			-.341E+2	6.2
2	8	47.	239.1	30	8	[illegible]	243.8	47	8	44.	241.3	37
	12	53.	.171E+3	-.7	12	29.	.476E+2	.4	4	48.	.775E+2	-.3
			-.179E-1	4.4			.409E-2	5.0			-.414E+2	4.4
3	8	45.	239.3	27	8	25.	243.8	34	8	43.	241.3	34
	12	51.	.170E+3	1.0	12	27.	.404E+2	.6	4	46.	.776E+2	-.8
			-.179E-1	4.7			.693E-2	2.7			-.368E+2	4.2
4	8	46.	239.0	31	8	22.	243.9	30	8	45.	241.2	35
	12	50.	.161E+3	.1	[illegible]	23.	.478E+2	.3	4	48.	.830E+2	.7
			-.149E-1	5.0			.525E-2	2.4			-.365E+2	4.7
5	8	45.	239.4	28	8	23.	244.2	37	8	47.	241.3	40
	12	52.	.177E+3	-.9	12	24.	.369E+2	-1.5	4	48.	.925E+2	.6
			-.187E-1	4.6			.689E-2	2.8			-.209E+2	5.4
6	8	46.	238.9	23	8	24.	243.9	32	8	44.	241.2	32
	12	52.	.170E+3	-.3	12	25.	.467E+2	-.5	4	48.	.766E+2	-.5
			-.168E-1	4.1			.548E-2	2.6			-.443E+2	4.4

STATIONS: 91162 78061 78801 91366 61902 (LOW LATITUDES)

PERIOD: 76/290 - 77/105   77/106 - 77/288   77/289 - 78/120

(Low latitudes same as page B-13)

ORIGINAL PAGE IS OF POOR QUALITY